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**WASTE DISPOSAL, INC., SUPERFUND SITE
Santa Fe Springs, California**

**STATUS OF ENVIRONMENTAL INVESTIGATIONS
1988-1998
for Parcel
APN 8167-002-051**

This Status of Environmental Investigations Report for Parcel 051 includes a summary of parcel ownership and environmental data for the subject land parcel. The report incorporates information from a variety of sources and organizations collected over a 10-year period during the various investigations of the Waste Disposal, Inc. Superfund Site. During development of the report, the U.S. Environmental Protection Agency made extensive efforts to verify the accuracy of the contents. However, there remains a potential for error originating from the numerous information sources themselves, or in the transcription of those sources. Sources not included or referenced in this report may also exist that could modify or update the conclusions contained in this report. The reader is cautioned to review the original source materials stated in the bibliography and additional sources that may be in the public record before drawing any conclusions regarding the absence or extent of contamination and wastes present within an individual site parcel. In addition, not all areas of each parcel were investigated during the referenced studies. The absence of data or investigative activities for areas of parcels should not be interpreted as meaning that any given area of a parcel does not contain buried wastes. Additional investigation may be warranted to confirm the absence or presence of wastes in any specific location within a parcel. Accordingly, this report is not intended to be singly relied on by any person or entity for any purpose. This report is intended to be a general summation and analysis only of the sources included or referenced herein. The U.S. Environmental Protection Agency is not responsible for the ultimate accuracy of this report nor for any reliance thereon. This report is not an order or final agency action.

December 2000

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 9
75 Hawthorne Street
San Francisco, California 94105

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
PARCEL SUMMARY	1
INTRODUCTION	2
OVERVIEW OF ENVIRONMENTAL SAMPLING INVESTIGATIONS	4
SUMMARY OF ENVIRONMENTAL SAMPLING RESULTS FOR APN 8167-002-051	11
BIBLIOGRAPHY OF SELECTED WDI SITE DOCUMENTS	14

FIGURES

Figure 1 Site Overview - Location of Parcel 051	3
Figure 2 Location of Sampling and Monitoring Points for Parcel 051	5
Figure 3 Estimated Extent of Buried Waste	9

TABLES

Table 1 Soil Analytical Results for Parcel 051	6
Table 2 Groundwater Analytical Results for Parcel 051	10
Table 3 Soil Gas Vapor Well Analytical Results for Parcel 051	12

ATTACHMENTS

- Attachment 1: Historic Ownership Chain of Title
- Attachment 2: Soil Boring Logs
- Attachment 3: Glossary of Terms

PARCEL SUMMARY:

Assessor's Parcel Number 8167-002-051

Title search was conducted for the period covering January 1, 1920 to February 5, 1997

BUILDING ADDRESS:

None

CURRENT OWNER:

Pitts Family Trust, since May 3, 1983 and The Adeline R. Bennett, M.D. Trust, since May 2, 1989

A complete chain of title, which is current through February 5, 1997, is included as Attachment 1 of this report.

INTRODUCTION

Parcel 8167-002-051 (Parcel 051) is one of 22 land parcels that collectively comprise the Waste Disposal, Inc. (WDI) Superfund Site (Figure 1). These 22 land parcels were identified by the U.S. Environmental Protection Agency (EPA) in July of 1987 as requiring investigation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) due to the prior use of the properties for waste disposal activities. This determination resulted in the WDI site's being placed on the National Priorities List (NPL) of hazardous waste sites for investigation and cleanup under CERCLA.

The main feature of the approximately 43-acre WDI site is a buried 42-million gallon concrete-lined reservoir in the center of the site that was constructed by 1924 as a covered container for crude petroleum storage. The areas outside of and adjacent to the reservoir began to be used for the unregulated disposal of a variety of liquid and solid wastes and the possible storage and mixing of drilling muds by the late 1920s. Between 1937 and 1941, the reservoir cover was removed. After the removal of the reservoir cover, from the early to mid 1940s onward; the reservoir began to be used for the disposal of wastes.

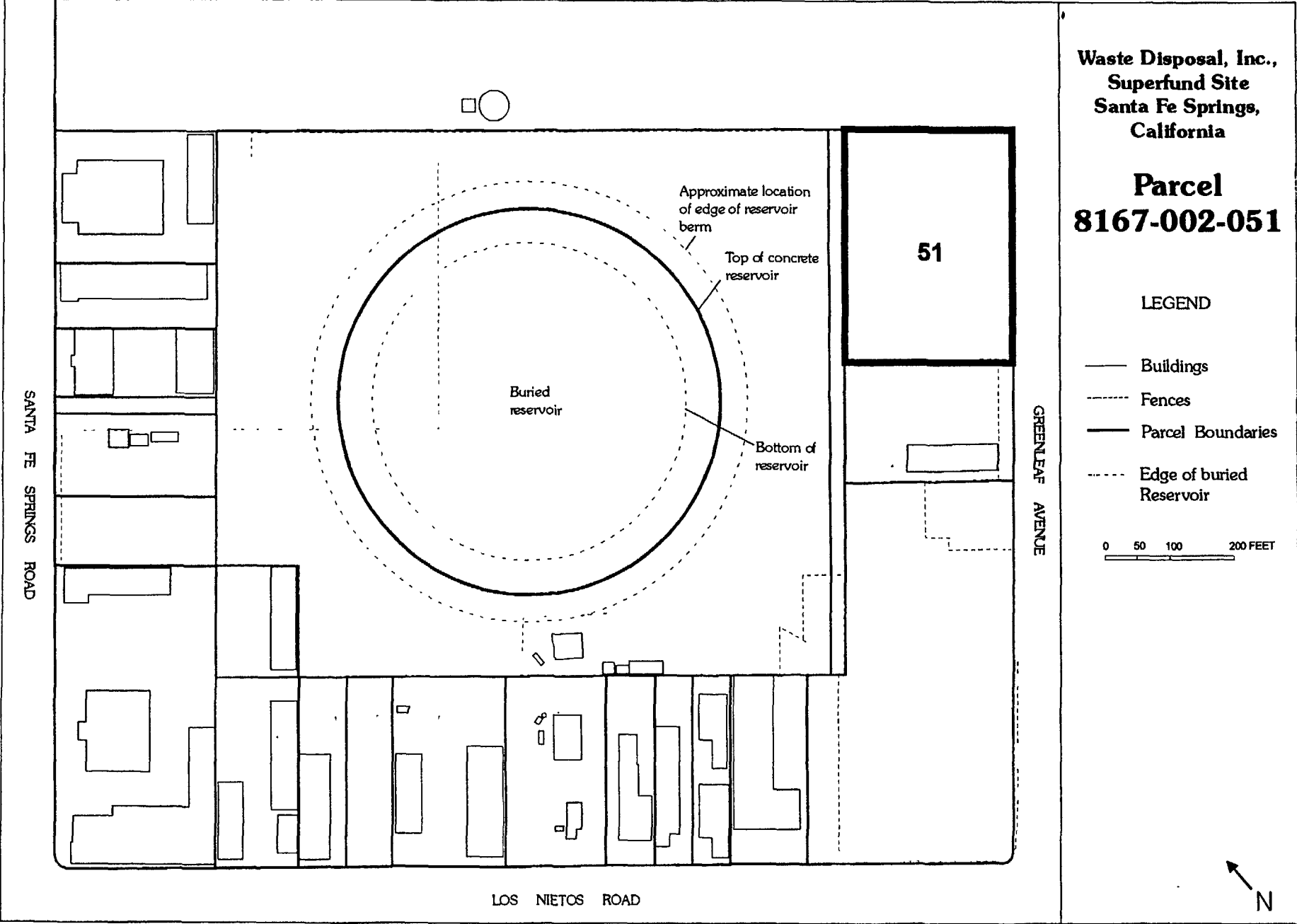
The site operated under a disposal permit beginning in 1949 until at least 1964, and operated perhaps for two to three years afterward. Permitted wastes included rotary drilling muds, clean earth, rock, sand, gravel, paving fragments, concrete, brick, plaster, steel mill slag, dry mud cake from oil field sumps, and acetylene sludge. Investigations have shown that disposed materials also included, but were not limited to, the following unpermitted wastes: organic wastes, oil refinery wastes, solvents, petroleum-related chemicals, and other chemical wastes. Wastes were disposed within the reservoir and on site areas adjacent to the reservoir.

During the 1950s, while disposal activities continued, the reservoir and some of the adjacent and surrounding areas began to be covered with fill material. Some of the perimeter areas of the site outside the reservoir began to be developed for commercial and industrial use. By 1963, the reservoir was covered with fill and by 1964, most, although not all, disposal activities appeared to have ceased. Grading of the fill cover continued until 1966. Currently, more than 20 buildings containing small businesses operate along the perimeter edges of three sides of the site.

In 1988, EPA began the remedial investigation (RI) of the site to determine the extent of buried wastes, and the presence of chemical wastes in soil, soil gas, and groundwater. This work involved drilling soil borings for soil sample collection and the installation of soil vapor and groundwater monitoring wells. EPA used the information collected during the RI to evaluate remedial alternatives in the WDI Feasibility Study Report, issued in 1993. Because the burial of wastes at the site makes it a landfill, EPA identified as the selected remedy in the 1993 Record of Decision (ROD) a remedy typical of landfill closures, consisting of capping of the reservoir area and excavation of wastes from some areas outside of the reservoir for consolidation with the wastes beneath the cap over the reservoir.

As of the present time, EPA has identified certain current owners or operators, former owners or operators who owned or operated the property at times of waste disposal, former operators of WDI, and generators of wastes disposed at the site. These parties are considered as potentially responsible parties

Figure 1: Waste Disposal, Inc., Santa Fe Springs, CA
Site Overview - Location of Parcel 051



(PRPs) under CERCLA. Under CERCLA, PRPs can be required to remediate any environmental and human health threats through response actions and to reimburse EPA for its costs in investigating and cleaning up the contaminated site. A group of PRPs known as the Waste Disposal, Inc. Group (WDIG) initiated the remedial design work for this remedy in 1995 under an EPA enforcement order.

The 1993 ROD did not specifically address groundwater. Because uncertainties remained about the extent of groundwater and soil gas contamination, and because further environmental data were necessary for completion of the remedial design, EPA and the WDIG conducted further site investigations. EPA and the WDIG has completed the majority of these additional investigations during the summer of 1998, and EPA is compiling data in order to re-evaluate the selected remedial action and to facilitate remedial design.

This Status of Environmental Investigations Report for Parcel 051 presents the findings from the various investigations of the WDI site conducted as of 1998 of concern to this specific parcel. Although data emphasis is placed on what is known for this parcel, selected findings from adjacent parcels are also provided when appropriate. Attachment 1 contains a chronological chain of title for Parcel 051 through February 5, 1997.

OVERVIEW OF ENVIRONMENTAL SAMPLING INVESTIGATIONS

1988 USEPA Remedial Investigation

In 1988, EPA conducted the first investigation of the WDI site under CERCLA. This investigation involved the collection of groundwater, soil, and soil gas samples at the site. At Parcel 051, five soil borings (SB-013, SB-029, SB-030, SB-041, and SB-042) were drilled for soil sample collection (Figure 2). Borings SB-029 and SB-030 were converted to groundwater monitoring wells GW-06 and GW-07, respectively. Table 1 presents the analytical results for the soil samples collected from these soil borings. The soil sample results indicate the presence of chlorinated solvents (1,1,1-trichloroethane, 1,1-dichloroethene, 1,2,4-trichlorobenzene, carbon tetrachloride, and tetrachloroethene), semivolatile petroleum waste chemicals [2-methylnaphthalene, acenaphthene, anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, fluorene, indeno(1,2,3-CD)pyrene, naphthalene, phenanthrene, and pyrene], and volatile organic chemicals (benzene, ethylbenzene, toluene, xylene, and 2-butanone). Benzene is the only chemical that exceeded its ROD cleanup standard of 2,700 parts per billion (ppb). Historical aerial photographs show that portions of Parcel 051 were used for the disposal of drilling muds contaminated with petroleum wastes. All of the chemicals listed above are typical of the chemicals found in wastes at the WDI site.

WDIG Site Investigations

In 1995, in support of remedial design activities, the WDIG collected additional subsurface soil samples at Parcel 051. The sample locations are identified as HAB-4-03 and HAB-4-04, and HPB-4-13 through HPB-4-26 on Figure 2. Analytical data for these soil samples are presented in Table 1 (not all of the samples from each boring were analyzed). The samples collected from within the buried waste mass contained

Figure 2: Location of Sampling and Monitoring Points for Parcel 051

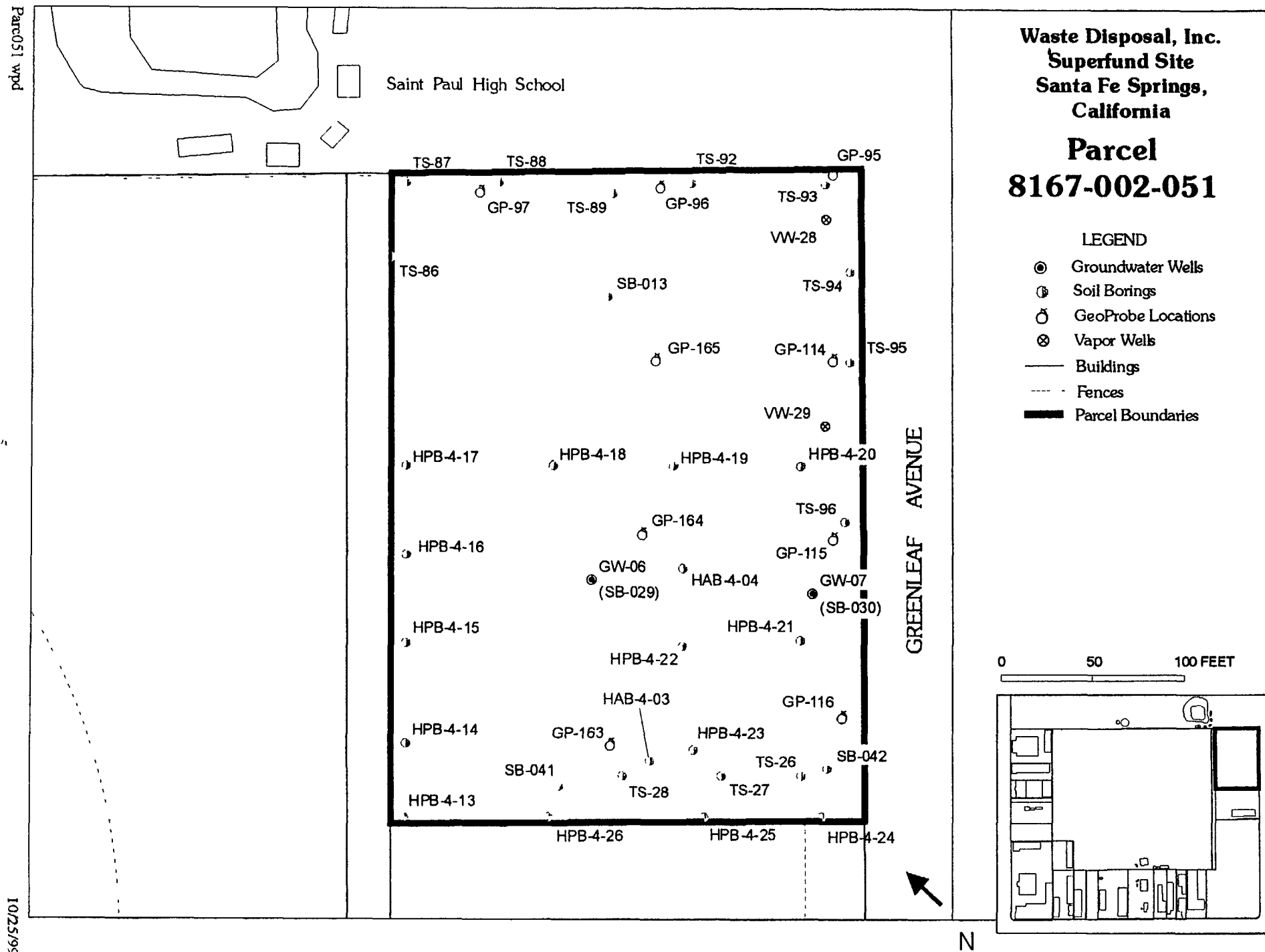


Table 1: Soil Analytical Results for Parcel 051

Organic Compounds

Sample Location	1993 ROD	SB-013	SB-013	SB-029	SB-029	SB-029	SB-029	SB-029	SB-029	SB-030	SB-030	SB-030	SB-030
Sample Date	STANDARDS	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988
Sample Depth (ft)		10	30	5	10	15	25	30	50	15	25	30	35
Concentration Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Analytical Parameter													
1 1 1 Trichloroethane	NE	NR	NR	NR	NR	6	NR	6	NR	NR	NR	NR	NR
1 1 Dichloroethene	NE	NR	NR	NR	3	NR	NR	NR	NR	NR	NR	NR	NR
1 2 4 Trichlorobenzene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 Butanone	NE	36	74	NR	NR	NR	NR	NR	NR	NR	NR	NR	1
2 Methylanthralene	NE	ND	ND	NR	5400	36000	32000	110	1600	NR	NR	NR	NR
Acenaphthene	NE	ND	ND	NR	NR	2200	2300	NR	140	NR	NR	NR	NR
Anthracene	NE	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzene	2 700	NR	NR	NR	NR	6700	560	NR	NR	NR	NR	130	NR
Benzo(a)pyrene	230	NR	NR	110	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzo(b)fluoranthene	230	NR	NR	170	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzo(g,h,i)perylene	NE	NR	NR	77	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzo(k)fluoranthene	230	NR	NR	91	NR	NR	NR	NR	NR	NR	NR	NR	NR
Carbon Tetrachloride	NE	NR	NR	NR	2	NR	NR	NR	NR	NR	NR	NR	NR
Chrysene	NE	ND	ND	97	410	1300	1200	NR	NR	NR	NR	NR	NR
Ethylbenzene	NE	NR	NR	NR	4	11000	7700	NR	230	NR	NR	250	NR
Fluoranthene	NE	ND	ND	68	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	NE	ND	ND	NR	1100	7800	5900	NR	NR	NR	NR	NR	NR
Indeno(1 2 3-CD)pyrene	NE	ND	ND	74	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naphthalene	NE	ND	ND	ND	3500	22000	15000	NR	660	NR	NR	NR	NR
Phenanthrene	NE	ND	ND	ND	2100	NR	11000	NR	430	NR	NR	NR	NR
Pyrene	NE	ND	ND	78	NR	NR	NR	NR	NR	NR	NR	NR	NR
Tetrachloroethylene	NE	ND	ND	NR	2	NR	NR	NR	NR	NR	NR	NR	NR
Toluene	NE	ND	ND	NR	NR	NR	11000	NR	NR	NR	NR	700	NR
Trichloroethene	NE	ND	ND	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Xylene(Total)	NE	ND	ND	NR	2	NR	NR	NR	NR	NR	NR	NR	NR

NE = Not established

ppb = parts per billion

NR = Not reported

Table 1: Soil Analytical Results for Parcel 051

Organic Compounds

Sample Location	1993 ROD	SB-041	SB-041	SB-041	SB-041	SB-041	SB-041	SB-042	SB-042	HAB-4-03	HAB-4-03	HAB-4-04	HAB-4-04	HPB-4-13	HPB-4-14	HPB-4-18
Sample Date	STANDARDS	1988	1988	1988	1988	1988	1988	1988	1988	Jun-95	Jun-95	Jun-95	Jun-95	Jun-95	Jun-95	Jun-95
Sample Depth (ft)		0	5	15	20	25	40	20	35	10	25	15	20	15	10	20
Concentration Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Analytical Parameter																
1,1,1-Trichloroethane	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,1-Dichloroethene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1,2,4-Trichlorobenzene	NE	35	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2-Butanone	NE	NR	12	NR	5	NR	NR	NR	NR	NR	NR	NR	NR	57	63	NR
2-Methylnaphthalene	NE	72	NR	NR	51000	110000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Acenaphthene	NE	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Anthracene	NE	NR	NR	NR	16000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzene	2,700	NR	NR	NR	NR	6600	NR	NR	NR	NR	NR	990	NR	NR	NR	NR
Benzo(a)pyrene	230	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzo(b)fluoranthene	230	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzo(g,h,i)perylene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Benzo(k)fluoranthene	230	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Carbon Tetrachloride	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chrysene	NE	NR	NR	NR	NR	8000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Ethylbenzene	NE	NR	NR	NR	140	14000	NR	NR	NR	32	7400	3100	6000	NR	NR	NR
Fluoranthene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluorene	NE	NR	NR	NR	6400	18000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Indeno(1,2,3-CD)pyrene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Naphthalene	NE	NR	NR	NR	24000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Phenanthrene	NE	NR	NR	NR		29000	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pyrene	NE	76	NR	NR	1500	NR	NR	47	NR	NR	NR	NR	NR	NR	NR	NR
Tetrachloroethylene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Toluene	NE	47	2	3	42	2100	12	3	4	NR	10000	NR	7200	NR	NR	440
Trichloroethene	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	32
Xylene(Total)	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	54000	13000	42000	NR	114

NE = Not established

ppb = parts per billion

NR = Not reported

volatile organic chemicals (benzene, ethylbenzene, toluene, and xylene) that are typically found in petroleum wastes and trichloroethene (a chlorinated solvent).

In 1997, the WDIG drilled borings TS-26 through TS-28, TS-86 through TS-89, and TS-92 through TS-96 that were used to estimate the extent of the subsurface waste that underlies part of the WDI site. These borings were drilled for visual characterization of the presence of buried wastes in order to better estimate the extent of the buried wastes found beneath this parcel as estimated on Figure 3.

Groundwater Sample Analytical Results

The two groundwater monitoring wells (GW-6 and GW-7; see Figure 2) installed in this Parcel during 1988 were sampled by EPA during 1989 and 1992, by WDIG and EPA in 1997, and by the WDIG in 1998. Table 2 presents the analytical results for chemicals present in the groundwater beneath Parcel 051. The metals arsenic, chromium, and lead, and the organic chemicals 2-butanone, chloroform, tetrachloroethene, and toluene were reported present in some of the samples. None of these analytes exceeded their respective Maximum Contaminant Level (MCL) except tetrachloroethene. Because the detections of these metals were sporadic, in the samples collected from these two wells and in samples from other wells located at the site, their presence may be related to regional groundwater quality. It is possible that toluene reflects site wastes, although the sporadic detections and low concentrations indicate that the impact, if any, is not significant.

1997-98 EPA Soil Gas/Indoor Air Investigations

During the summer of 1997, EPA collected and analyzed soil gas and indoor air samples at the WDI site, including Parcel 051. The purpose of these investigations was to evaluate the potential for migration of soil gas contaminants from the buried waste into the indoor air of the on-site buildings. In order to establish contaminant levels that could be used to determine the need for future site investigations, EPA developed interim threshold levels for chemicals found in soil gas on-site. If a chemical was found to exceed the interim threshold level, EPA determined the need for additional investigations such as indoor air monitoring or expansion of the soil gas monitoring well network. The interim threshold levels are presented in the tables in this report along with the analytical data for Parcel 051.

EPA developed the interim threshold levels based on certain assumptions and property uses at the site. For each chemical, EPA calculated a risk range and selected a concentration level that was within a one in one million (10^{-6}) or one in 100,000 (10^{-5}) cancer risk, depending on the chemical. Exceedance of that concentration does not necessarily indicate an immediate risk. The levels are interim for the purposes of the site investigation, and may or may not be adopted as threshold levels for the final remedy. Because there are no structures located on Parcel 051, no indoor air sampling was performed on this parcel.

Soil gas samples were collected from nine temporary probes. The temporary probe locations are shown as GP-95, GP-96, GP-97, GP-114, GP-115, GP-116, GP-163, GP-164, and GP-165 on Figure 2. The temporary probes were installed by hammering stainless-steel rods to a depth of about 10 ft and then

Figure 3: Waste Disposal, Inc., Santa Fe Springs, CA
Estimated Extent of Buried Waste

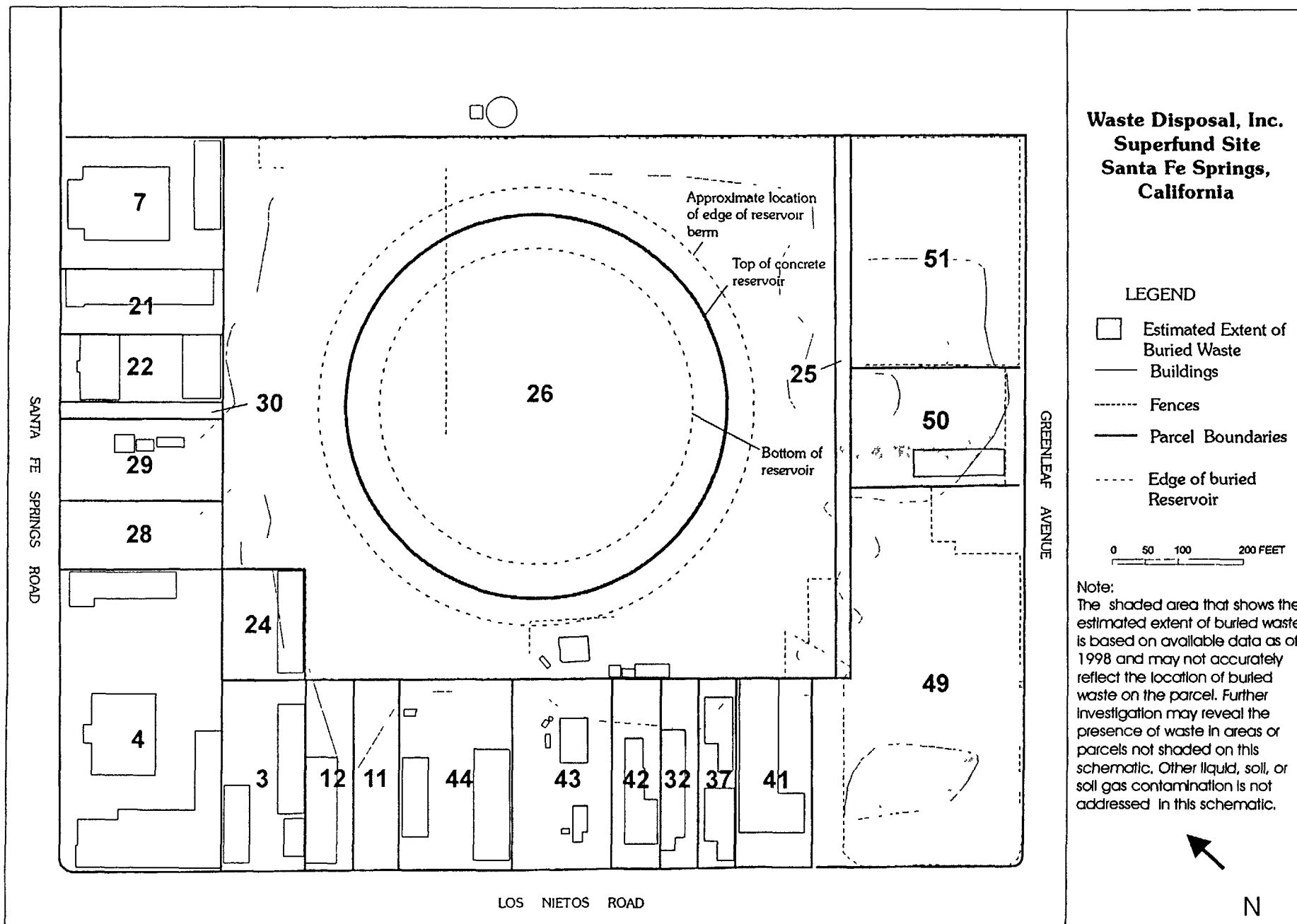


Table 2: Groundwater Analytical Results for Parcel 051

Organic Compounds

Sample Location	Maximum	GW-06	GW-06	GW-07	GW-07	GW-07	GW-07	GW-07
Sample Date	Contaminant	Sep-97	Jan-98	Aug-92	Jun-95	Sep-95	Sep-97	Jan-98
Sample Interval (feet)	Level	43-63	43-63	38-58	38-58	38-58	38-58	38-58
Concentration Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Analytical Parameter								
1,1-Dichloroethene	6	ND	ND	NR	NR	NR	ND	ND
1,2-Dichloroethane	NE	ND	ND	NR	NR	NR	ND	ND
2-Butanone	NE	ND	NA	41	NR	NR	ND	NA
2-Hexanone	NE	ND	ND	NR	NR	NR	ND	ND
4-Methyl-2-pentanone	NE	ND	NA	NR	NR	NR	ND	NA
Acetone	NE	ND	ND	NR	NR	NR	ND	ND
Chloroform	NE	14	15	NR	3.1	3	3	29
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	NE	ND	ND	NR	12	NR	ND	ND
Tetrachloroethene	5	ND	59	ND	ND	ND	ND	ND
Toluene	150	3	NA	ND	ND	ND	7	NA
Trichloroethene	5	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	1750	ND	NA	NR	NR	NR	NR	NR

Metals

Sample Location	Maximum	GW-06	GW-06	GW-06	GW-06	GW-07	GW-07	GW-07
Sample Date	Contaminant	Nov-88	Sep-97	Sep-97	Jan-98	Nov-88	May-92	Aug-92
Sample Interval (feet)	Level	43-63	43-63	43-63	43-63	38-58	38-58	38-58
Comment		Total	Total	Dissolved	Dissolved	Total	Total	Total
Concentration Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Analytical Parameter								
Arsenic	50	30	ND	45	ND	ND	ND	ND
Chromium	50	160	91	141	ND	ND	39	65
Lead	15	50	26	24	ND	30	13	ND

Metals

Sample Location	Maximum	GW-07	GW-07	GW-07	GW-07	GW-07
Sample Date	Contaminant	Jun-95	Sep-95	Sep-97	Sep-97	Jan-98
Sample Interval (feet)	Level	38-58	38-58	38-58	38-58	38-58
Comment		Total	Total	Total	Dissolved	Dissolved
Concentration Units	ppb	ppb	ppb	ppb	ppb	ppb
Analytical Parameter						
Arsenic	50	ND	ND	ND	ND	ND
Chromium	50	94	29	102	46	ND
Lead	15	ND	ND	22	45	ND

ppb = parts per billion or micrograms per liter (ug/L)

NE = Not established

attaching Teflon tubing to an adapter at the bottom of the rods. Some of these probes were also pushed to 20 feet for collection of deeper samples. A portable vacuum pump was used to collect the samples for on-site analysis. Field instruments were also used to detect methane and volatile organic chemicals.

There were no detections of volatile organic chemicals in the samples analyzed from the probes, however methane was detected at 0.2% in probe GP-163, installed within the buried waste mass.

Soil Vapor Well Analytical Results

Soil vapor well VW-29 was installed by the WDIG during December 1997 and VW-28 during May 1998. These two wells serve as site boundary monitoring points. VW-29 was installed with three sampling probes completed at three depth intervals in relation to the buried waste found in the central area of the site. The shallow probe was installed between 5 and 10 feet below ground surface (bgs) to monitor the soil interval above the waste, the intermediate probe was installed between 18 and 23 feet bgs to sample soil gas from the same depth as the buried waste interval, and the deep probe was installed at 30 to 35 feet bgs to sample soil gas below the buried waste interval. VW-28 was installed with two probes, one completed above the waste interval and the second below the buried waste interval. VW-29 was first sampled in February 1998 and VW-28 was first sampled in July 1998 (installation of VW-28 was delayed due to the winter rains that prevented access of the drilling rig to the well site). Table 3 presents the soil vapor analytical results for these wells for the 1998 sampling events. The chlorinated solvent chemicals 1,1,1-trichloroethane, tetrachlorethane, and trichloroethene; and the volatile organic chemicals toluene, ethylbenzene, and xylene were reported for samples collected from all of the well probes. Interim threshold levels were not exceeded for any of these chemicals and methane concentrations were less than 2 ppm, which is well below the interim soil gas threshold level of 12,500 ppm for methane.

WDIG Remedial Design Investigative Activities 1997-98

During the fall of 1997 and the spring and summer of 1998, the WDIG conducted a number of studies at the WDI site. These studies included the installation of soil vapor wells, the drilling of soil borings for soil/waste characterization, the evaluation of the soil vapor removal technology effectiveness, and the evaluation of studies of liquids removal effectiveness. As part of these studies at Parcel 051, WDIG installed soil gas monitoring wells VW-28 and VW-29 and drilled soil borings TS-26 through TS-28, TS-86 through TS-89, and TS-92 through TS-96 that were used to estimate the extent of the buried waste.

SUMMARY OF ENVIRONMENTAL SAMPLING RESULTS FOR APN 8167-002-051

Site investigations performed during 1988-89, 1995, 1997, and 1998 have evaluated soil, soil-gas, and groundwater quality associated with Parcel 051. Chemical analysis of soil samples identified the presence of oil field waste chemicals typical of wastes buried at the WDI site. Soil borings drilled in Parcel 051 indicate that buried waste underlies the majority of the southern half of the parcel. These borings indicated that the waste is as deep as 18 feet bgs and averages 10 feet in thickness. Soil gas results for this parcel

Table 3: Soil Gas Vapor Well Analytical Results for Parcel 051

Sample Location	Interim Soil Gas	VW-28	VW-28	VW-29	VW-29	VW-29	VW-29	VW-29	VW-29
Sample Date	Threshold	Jul-98	Jul-98	Feb-98	Feb-98	Feb-98	Apr-98	Apr-98	Apr-98
Screen Interval	Levels	10	25	10	23	35	10	23	35
Concentration Units	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv
Analytical Parameter									
1,1,1-Trichloroethane	18400	24	0.62	20	ND	0.65	390	5.1	2.6
1,1-Dichloroethene	180	ND	ND	ND	ND	ND	ND	ND	3.10
2-Butanone	NE	ND	ND	ND	ND	0.84	ND	ND	ND
Acetone	15600	2.7	1.5	6.7	3.6	19	4.2	3.5	8.9
Benzene	100	ND	ND	1.3	ND	ND	ND	ND	ND
Bromodichloromethane	NE	ND	ND	2.4	ND	ND	0.52	ND	ND
Bromoform	NE	ND	ND	3.4	ND	ND	0.26	ND	ND
Carbon Disulfide	NE	3.2	3.4	1.8	ND	ND	4.7	1.8	1.5
Carbon Tetrachloride	34	ND	ND	ND	ND	ND	ND	0.69	ND
Chloroform	170	1.7	1.4	2	ND	4.4	0.53	ND	2.5
Dibromochloromethane	NE	ND	ND	3.7	ND	ND	0.67	ND	ND
Ethylbenzene	24500	ND	ND	1.2	0.68	ND	ND	ND	ND
m- & p-Xylene	7140	2.4	1.8	5.2	2.9	1.8	0.84	0.58	ND
Methyl tert-Butyl Ether	NE	4	3.5	2.6	1.10	0.71	0.73	ND	ND
Methylene Chloride	NE	ND	ND	ND	ND	ND	ND	ND	1.4
o-Xylene	7140	1.1	0.73	1.2	0.66	ND	ND	ND	ND
Tetrachloroethene	532	7.3	19	1.2	6.7	13	1.5	7.1	17
Toluene	10600	3.1	2.4	7.4	7.8	9	1.1	1.1	0.94
Trichloroethene	411	0.78	ND	ND	ND	0.57	ND	ND	1.4
Trichlorofluoromethane	NE	4.3	ND	0.46	0.81	1.2	0.46	0.79	1
Trichlorotrifluoroethane	NE	15	ND	2.3	9.2	15	3.2	10	13
Methane									
Lab Methane (ppm)	12500	ND	ND	1.20	ND	ND	1.1	ND	ND

ND = not detected; NR = Not reported

NE = none established

ppbv = parts per billion by volume

ppm = parts per million

indicate minimal impact due to the buried wastes. Groundwater data for the parcel indicate no significant impact to groundwater beneath this parcel.

Soil borings drilled and wells installed at Parcel 051 and adjacent parcels have been used in estimation of the extent of soil and groundwater contamination for the site overall. The approximate extent of the buried waste that surrounds the reservoir area as shown on Figure 3 is partially based on the results of the 1988 investigation and the 1997-1998 site investigations.

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ATTACHMENTS

ATTACHMENT 1
HISTORIC OWNERSHIP CHAIN OF TITLE
Through February 5, 1997
WASTE DISPOSAL, INC., SUPERFUND SITE
APN 8167-002-051

No. 1

01-15-21

Book 134 Page 213 of Official Records

James Weaver, et al.

Brenton S. Carr

Granted oil leasehold

No. 2

06-15-21

Book 332 Page 140 of Official Records

Brenton S. Carr / Huntington Owners Oil Co.

James Weaver, et al.

Surrendered oil leasehold

No. 3

11-26-21

Book 587 Page 368 of Official Records

Pacific Land Improvement Co.

Chanslor-Canfield Midway Oil Co.

Grant deed

No. 4

01-22-32

Book 11335 Page 264 of Official Records

Chanslor-Canfield Midway Oil Co.

General Petroleum Corp. of CA

Grant deed to real property, oil rights reserved by seller

No. 5

03-01-40

Book 17327 Page 128 of Official Records

General Petroleum Corp. of CA

Public record

Notice of non-responsibility

No. 6

02-02-42

Book 19044 Page 385 of Official Records

General Petroleum Corp. of CA

Ford Alexander Corp.

Deed to real property, oil rights reserved by Chanslor-Canfield

No. 7

02-26-46

Book 22789 Page 395 of Official Records

Ford Alexander Corp.

Public record

Notice of completion of work

No. 8
10-21-47
Book 25500 Page 167 of Official Records
Ford Alexander Corp.
N. B. Hudson
Grant deed to real property, oil rights reserved by Chanslor-Canfield

No. 9
10-21-47
Book 25500 Page 169 of Official Records
N.B. Hudson
F. Caneer, D. L. Carter, Marvin Pitts
Grant deed, undivided 1/4 interest each

No. 10
10-05-51
Book 37358 Page 244 of Official Records
Chanslor-Canfield Midway Oil Co.
Atlantic Oil Co.
Leased oil & gas rights

No. 11
10-05-51
Book 37361 Page 362 of Official Records
Chanslor-Canfield Midway Oil Co.
Public record
Notice of non-responsibility

No. 12
06-15-53
Book 41974 Page 191 of Official Records
Morton and Dolley, a partnership: Harold C. Morton, Dorothy F. Morton, Chester F. Dolley
California Bank, beneficiary; California Trust Co., trustee
Deed of trust

No. 13
04-05-55
Book 47409 Page 100 of Official Records
N. B. Hudson
N. B. Hudson and Bessie Hudson
Grant deed, joint tenancy, 1/4 undivided interest

No. 14
09-14-56 (Doc. date)
Book 52331 Page 1 of Official Records
Morton and Dolley, a partnership: Harold C. Morton, Dorothy F. Morton, Chester F. Dolley
California Bank, beneficiary and trustee
Deed of trust

No. 15

10-15-57

Book 55855 Page 30 of Official Records

N. B. Hudson, F. Caneer, D. L. Carter, Marvin Pitts

Southern California Edison Co.

Easement

No. 16

01-24-58

Book 56430 Page 277 of Official Records

D. L. Carter, F. Caneer, Marvin Pitts

Southern California Edison Co.

Easement

No. 17

04-05-60

Instrument No. 1677

N. B. Hudson, Bessie Hudson

D. L. Carter, Zelda Carter

Easement

No. 18

04-05-60

Instrument No. 1678

D. L. Carter, Zelda Carter

N. B. Hudson, Bessie Hudson, beneficiaries; Security First National Bank, trustee

Deed of trust

No. 19

07-15-60

Instrument No. 4314

Security First National Bank, trustee

Persons entitled

Full reconveyance

No. 20

10-13-60

Instrument No. 4813

D. L. Carter, Zelda Carter

Marvin Pitts, Cecilia Pitts

Grant deed to 1/12 interest in easement

No. 21

10-13-60

Instrument No. 4814

D. L. Carter, Zelda Carter

Fernando Caneer, Wanda Caneer

Grant deed to 1/12 interest in easement

No. 22

11-08-63

Instrument No. 4882

Morton and Dolley, a partnership: Harold C. Morton, Dorothy F. Morton, Chester F. Dolley, Anna M. Dolley

United California Bank, beneficiary and trustee

Deed of trust

No. 23

02-16-65

Instrument No. 5962

United California Bank, trustee

Persons entitled

Full reconveyance

Affects Doc. No. 12

No. 24

02-16-65

Instrument No. 5963

United California Bank, trustee

Persons entitled

Full reconveyance

Affects Doc. No. 14

No. 25

07-19-65

Instrument No. 3598

Roman Catholic Archbishop

Public record

Notice of completion

No. 26

05-23-69

Instrument No. 2917

Mobil Oil Co.

Public record

Unit agreement

No. 27

05-23-69

Instrument No. 2918

Mobil Oil Co.

Public record

Exhibits to unit agreement

No. 28

08-25-69

Instrument No. 2535

United California Bank, trustee

Security Pacific National Bank

Assignment and substitution of trustee

No. 29
01-21-70
Instrument No. 3004
F. Caneer
John Caneer, Joseph Caneer, each having an undivided one-half interest
Quitclaim deed

No. 30
01-21-70
Instrument No. 3005
F. Caneer
John Caneer, Joseph Caneer, each then having an undivided one-half interest
Quitclaim deed

No. 31
12-28-70
Instrument No. 1146
Mobil Oil Co.
Public record
Certificate that Unit Agreement will become effective

No. 32
01-26-71
Instrument No. 1631
Mobil Oil Co.
Public record
Counterpart C of Unit Agreement

No. 33
02-18-71
Instrument No. 3068
Chanslor-Western Oil and Development Co.
Public record
Agreement to become a party to unit agreement

No. 34
08-17-71
Instrument No. 3195
Bell Petroleum Co., Roland Way, Ethel Eckels
Public record
Agreement to become a party to unit agreement

No. 35
11-22-71
Instrument No. 3911
Estate of Wanda Caneer
Joseph Caneer, John Caneer
Order for final distribution of estate

No. 36
08-21-72
Instrument No. 3990
Rodman Palmer
Public record
Agreement to become a party to unit agreement

No. 37
09-19-72
Instrument No. 3644
John Caneer, Joseph Caneer, Estate of Fernando Caneer
Internal Revenue Service, beneficiary; Title Insurance and Trust Co., trustee
Deed of trust

No. 38
02-27-73
Instrument No. 2733
D. L. Carter
City of Santa Fe Springs
Easement

No. 39
03-09-73
Instrument No. 4175
N. B. Hudson
City of Santa Fe Springs
Easement

No. 40
03-09-73
Instrument No. 4176
Marvin W. Pitts, Cecilia Pitts
City of Santa Fe Springs
Easement

No. 41
03-09-73
Instrument No. 4177
John Caneer, Joseph Caneer
City of Santa Fe Springs
Easement

No. 42
07-14-73
Instrument No. 704
Title Insurance and Trust Co., trustee
Persons entitled
Full reconveyance
Affects Doc. No. 37

No. 43
12-20-73
Instrument No. 3425
Catherine Yrisarri
Public record
Agreement to become a party to unit agreement

No. 44
12-31-73
Instrument No. 399
N. B. Hudson, Bessie Hudson
Phil Campbell, Gwen H. Campbell
Grant Deed

No. 45
12-31-73
Instrument No. 400
Delmer L. Carter, Zelda May Carter
Phil Campbell, Gwen H. Campbell
Grant deed

No. 46
12-31-73
Instrument No. 401
Phil Campbell, Gwen Campbell
N. B. Hudson, Bessie Hudson, beneficiaries; Security Pacific National Bank, trustee
Deed of trust

No. 47
12-31-73
Instrument No. 402
Phil Campbell, Gwen Campbell
Delmer Carter, Zelda Carter, beneficiaries; Security Pacific National Bank, trustee
Deed of Trust

No. 48
03-22-74
Instrument No. 3808
Mobil Oil Co.
Public record
First revision of exhibit B of unit agreement

No. 49
04-15-74
Instrument No. 2865
Mobil Oil Co.
Public record
Second revision of exhibit B of unit agreement

No. 50

05-17-74

Instrument No. 4331

Marvin W. Pitts, Cecilia Pitts

Marvin E. Pitts

Grant Deed

No. 51

05-17-74

Instrument No. 4332

Marvin E. Pitts

Marvin W. Pitts, Cecilia Pitts, beneficiaries; Lawyers Title Insurance Corp., trustee

Deed of trust

No. 52

07-29-75

Instrument No. 335

Delmer L. Carter, Zelda M. Carter

Phil Campbell, Gwen Campbell

Agreement modifying note secured by deed of trust

No. 53

07-29-75

Instrument No. 336

Phil Campbell, Gwen Campbell

N.B. Hudson, Bessie Hudson, Delmer Carter, Zelda Carter, beneficiaries Security Pacific National Bank, trustee

Deed of trust

No. 54

10-20-76

Instrument No. 4482

Joseph Caneer

Phil Campbell, Gwen H. Campbell, Marvin E. Pitts, John Caneer, Security Pacific National Bank, Nollie B. Hudson, Bessie Hudson, Delmer L. Carter, Zelda M. Carter, Lawyers Title Insurance Corp., Cecilia Pitts

Notice of Lis Pendens

No. 55

07-19-78

Instrument No 78-786983

Marvin E. Pitts

Marvin Pitts, Cecilia Pitts

Joint tenancy grant deed

No. 56

09-11-79

Instrument No. 79-1006639

John Caneer, Joseph Caneer

Phil Campbell, Gwen Campbell

Grant deed

No. 57

10-12-79

Instrument No. 79-1145303

John Caneer, Joseph Caneer

Adeline R. Bennett

Grant deed

No. 58

02-21-80

Instrument No. 80-177192

Lucy Caneer, La Rea Caneer, wives of Joseph Caneer and John Caneer

Adeline R. Bennett, M.D.

Quitclaim deed

No. 59

06-18-80

Instrument No. 80-589720

D. L. Carter, beneficiary

Security Pacific National Bank, trustee

Assignment of deed of trust

No. 60

06-18-80

Instrument No. 80-589722

D. L. Carter, beneficiary

Security Pacific National Bank, trustee

Assignment of deed of trust

No. 61

11-05-81

Instrument No. 81-1100281

Loper Sheet Metal, Inc.

Public record

Mechanic's lien

No. 62

01-15-82

Instrument No. 82-50072

Phil Campbell, Gwen Campbell, Marvin E. Pitts, Marvin W. Pitts, Cecilia Pitts, Adeline Bennett, as interest holders;

Marvin W. Pitts, Cecilia Pitts, as beneficiaries under deed of trust; Security Pacific Bank, as trustee under deed of trust

Public record

Parcel Map No. 14608 (map of subdivision)

No. 63

01-18-82

Instrument No. 82-57860

City of Santa Fe Springs

Public record

Covenant and agreement to hold property as one parcel

No. 64

02-26-82

Instrument No. 82-207630

Joseph Caneer, Lucy Caneer, John Caneer, La Rea Caneer

Phil Campbell, Gwen Campbell

Easement

No. 65

05-28-82

Instrument No. 82-549240

Superior Court of the State of California for the County of Los Angeles

Marvin W. Pitts and Cecilia Pitts (½ interest), and Adeline R. Bennett, M. D. (½ interest)

Corrected final judgment of partition and quieting title

No. 66

06-07-82

Instrument No. 82-574192

Marvin W. Pitts, Cecilia Pitts, substituted trustees

Persons entitled

Substitution of trustee and full reconveyance

Affects Doc. No. 51

No. 67

08-31-82

Instrument No. 82-886182

Security Pacific National Bank, trustee

Persons entitled

Full reconveyance

Affects Doc. Nos. 53, 60

No. 68

05-03-83

Instrument No. 83-493853

Marvin Pitts, Cecilia Pitts

Pitts Family Trust

Quitclaim deed

No. 69

05-03-83

Instrument No. 83-493854

Marvin Pitts, Cecilia Pitts

Pitts Family Trust

Quitclaim deed

No. 70

05-02-89

Instrument No. 89-697295

Adeline R. Bennett

Adeline R. Bennett Trust

Grant deed

No. 71

07-19-91

Instrument No. 91-1112254

Atlantic Oil Co.

Chanslor-Canfield Midway Oil Co.

Quitclaim of oil and gas lease

No. 72

12-29-94

Instrument No. 94-2287419

Bank of America N.T. & S.A.

Public record

Notice of Intent to Preserve Interest

No. 73

02-07-96

Instrument No. 96-218799

Los Angeles County

Public record

Notice that weeds on property are a public nuisance

ATTACHMENT 2

Soil Boring Logs

FIELD BORING LOG

OFS NUMBER:

SHEET 1

PROJECT NAME: WASTE DISPOSAL INC.
 LOCATION: SANTA FE SPRINGS
 CALIFORNIA
 CLIENT NAME: EPA
 SITE MANAGER: D. MELCHIOR
 LOGGED BY: D. MELCHIOR

BORING NUMBER: SB-013
 BORING LOCATION: OPEN FIELD
 DRILLING CONTRACTOR: DATUM
 DRILLING METHOD: HSA
 BIT SZ/HAMMER WT/DROP: 7"/140#/30"
 SAMPLE RETRIEVAL SYS: SPLIT SPOON

DATE/TIME STARTED: 09/09/88 1335
 DATE/TIME COMPLETED: 09/09/88 1515
 TOTAL DEPTH: 35.50
 SURFACE ELEVATION: 156.2903
 WATER DEPTH: 0.00

DEPTH IN FT	GRAPHIC LOG							SAMPLE DATA										DESCRIPTION
	B O U L D E R S	C O B L E S	C R E S S E D	M E S S A G E S	F I N E S S I L T Y	S C L A Y		S A M P L E #	B L O W S 6"	O V A P P M	C G I % L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M	U S C S S Y M B	H N U	
0									0 0 0	0.0	0						0.0	FILL WITH CONCRETE AND RUBBLE 0-2'.
5					X--X			01 02 03	8 8 7	0.0	0	N	DB	DR	M-L	SM	0.0	DARK BROWN SILTY SAND WITH ABOUT 5% PEA GRAVEL. APPEARS TO BE FILL. NONE ARE COHESIVE. 5-6.5'. 1340
10						X		04 05 06	14 20 29	0.0	0	N	DB	DR	L	ML	0.0	DARK BROWN VERY COHESIVE SILT WITH VERY LITTLE SAND. 10-11.5'. CLP SAMPLE. 1350
15					X--X			07 08 09	10 15 20	0.0	0	N	G	SM	L	ML	0.0	BROWN/GRAY COHESIVE SILTS WITH LITTLE OR NO SAND PRESENT, SOME CLAY. 1405
20			X			X			0 0 0	0.0	0	N	DB	SM	H	SP	0.0	AT 17', ENCOUNTERED SANDS WITH SOME GRAVEL UNTIL 18.5'. SILTS UNTIL 20'. NO SAMPLE COLLECTED. NO ODOR IN CUTTINGS.
25				X					35 35 48	0.0	0				M	SP	0.0	NO SAMPLE RECOVERY. TAN MEDIUM SAND. 25-26.5'. 1435
30					X			10 11 12	40 55 60	0.0	0	N	T	DR	M	SP	0.0	TAN MEDIUM-GRAINED SAND. NO COHESIVENESS SAMPLE COLLECTED WITH SAND TRAP. 30-31.5'. CLP SAMPLE. 1455
35				X--X				13 14	49 100 0	0.0	0	N	T	DR	M	SP	0.6	SAMPLE 13 AND 14 NON-CLP INORGANICS. NO SAMPLE RECOVERY FOR ORGANIC SLEEVE. TAN TO LIGHT BROWN MEDIUM TO FINE SAND. 35-36.5'. 1505

FIELD BORING LOG

OFS NUMBER:

SHEET 1

PROJECT NAME: WASTE DISPOSAL INC.
 LOCATION: SANTA FE SPRINGS
 CALIFORNIA
 CLIENT NAME: EPA
 SITE MANAGER: D. MELCHIOR
 LOGGED BY: G. GALLOWAY

BORING NUMBER: SB-029
 BORING LOCATION: RESERVOIR AREA
 DRILLING CONTRACTOR: DATUM
 DRILLING METHOD: HSA
 BIT SZ/HAMMER WT/DROP: 7"/140#/30"
 SAMPLE RETRIEVAL SYS: SPLIT SPOON

DATE/TIME STARTED: 09/09/88 0938
 DATE/TIME COMPLETED: 09/14/88 1200
 TOTAL DEPTH: 67.50
 SURFACE ELEVATION: 158.6310
 WATER DEPTH: 51.00

DEPTH IN FEET	GRAPHIC LOG										SAMPLE DATA										DESCRIPTION	
	B -O U L D E R S	C O B L S S	M C R O S S	F I N E S S A N D	S I L T Y	C L A Y	S A M P L E #	B L O W S 6"	O V A P P M	C G I X L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M	U S C S S Y M B	H N U						
0								0 0 0	0.0	0						0.0						
0			X--X		X--X			4 5 12	0.0	0	N	RB	DR	L,M	SM	0.0					SILTY SAND WITH ROCKS AND PEBBLES, RED BROWN, DRY, MEDIUM DENSE.	1343
5			X--X--X--X				01 02 03	8 8 4	0.0	0	N	G	DR	H,H	SP	0.0					MEDIUM COARSE GRAINED SAND, GRAY, DRY, MEDIUM DENSE, CHIPS AND BLOCKS OF TILE AND CEMENT. CLP SAMPLE.	1400
10						X	04 05 06	1 1 4	1.0	0	HC	DG	SM/ MO	L,L	CL	0.0					AT 9.5 FEET SOFT, DARK GRAY CLAY (MUD), DAMP TO MOIST. NON CLP SAMPLE.	1415
15						X	07 08 09	2 2 3	300.0	100	HC	DG	MO	L,L	CL	40.0					HOLE IS ABOVE 100% LEL. FOR 45 MINUTES WE WILL ABANDON AND ALLOW TO VENT. NON CLP SAMPLE.	1425
20					X--X--X		10	1 0 0	1.0	100	HC	DG- YB	SM- MO	LL-M H	CL- SP	30.0					MEDIUM GRAINED SANDS WITH CLAY. ALLUVIUM ALLUVIUM. POOR SAMPLE RECOVERY-ONLY ONE SAMPLE SLEEVE COLLECTED. NON CLP SAMPLE.	1022
25					X--X--X		11 12 13	2 3 4	0.0	100	HC	DG	MO	MM	SC	17.0					DARK GRAY TO GRAY, SILTY CLAY WITH TRACES OF SUMP MATERIAL.	1111
30			X--X				14 15 16	17 34 48	0.0	75	SHC	G	SM- MO	MM	SM	0.0					DARK GRAY MEDIUM GRAINED SAND AND SILT. HYDROCARBON SUMP CONTAMINATION.	1126
35			X--X				25 50 0		0.0	70	N	T	SM- MO	HH	SP	35.0					GRAY TO TAN COARSE GRAINED SAND. MEDIUM DENSE, DAMP.	
40				X			24 34 44		0.0	***	N	DG	SM- MO	M-H	SP	0.0					DARK GRAY SILTY FINE SAND AND CLAY. MEDIUM DENSE.	

FIELD BORING LOG

OFS NUMBER:

SHEET 2

PROJECT NAME: WASTE DISPOSAL INC.
 LOCATION: SANTA FE SPRINGS
 CALIFORNIA
 CLIENT NAME: EPA
 SITE MANAGER: D. MELCHIOR
 LOGGED BY: G. GALLOWAY

BORING NUMBER: SB-029
 BORING LOCATION: RESERVOIR AREA
 DRILLING CONTRACTOR: DATUM
 DRILLING METHOD: HSA
 BIT SZ/HAMMER WT/DROP: 7"/140#/30"
 SAMPLE RETRIEVAL SYS: SPLIT SPOON

DATE/TIME STARTED: 09/09/88 0938
 DATE/TIME COMPLETED: 09/14/88 1200
 TOTAL DEPTH: 67.50
 SURFACE ELEVATION: 158.6310
 WATER DEPTH: 51.00

DEPTH IN FEET	GRAPHIC LOG						SAMPLE DATA										DESCRIPTION	
	B O U L D E R S	C O S S E S	C R E S S E S	M E S S E S	F I N E S S I L A Y		S A M P L E #	B L O W S 6"	O V A P P M	C G I X L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M	U S C S S Y M B	H N U		
45					X--X--X--X			27 50 0	0.0	65	N	B	SM	HH	SP	40.0	MEDIUM TO COARSE GRAINED SAND, GOLDEN BROWN, VERY DENSE, DAMP.	
50					X--X--X		17 18 19	30 50 0	0.0	40	N	G	WT	HH	SM	30.0	AT 50' MEDIUM GRAINED SAND, GREEN, VERY DENSE, WET. NON CLP SAMPLE.	
55					X--X			0 0 0	0.0	28	N	YB	WT	HH	SP	30.0	AT 55' COARSE GRAINED SAND, YELLOW/GREEN, MEDIUM DENSE, WET.	
60					X--X			0 0 0	0.0	0					SP	0.0	GROUNDWATER AT 50', CAVING AT 52'. INSTALLED MONITORING WELL.	

1222

FIELD BORING LOG

OFS NUMBER:															SHEET 1		
PROJECT NAME: WASTE DISPOSAL INC. LOCATION: SANTA FE SPRINGS CALIFORNIA CLIENT NAME: EPA SITE MANAGER: D. MELCHIOR LOGGED BY: G. GALLOWAY										BORING NUMBER: SB-030 BORING LOCATION: RESEVOIR AREA DRILLING CONTRACTOR: DATUM DRILLING METHOD: HSA BIT SZ/HAMMER WT/DROP: 7"/140#/30" SAMPLE RETRIEVAL SYS: SPLIT SPOON					DATE/TIME STARTED: 09/14/88 1345 DATE/TIME COMPLETED: 09/15/88 0915 TOTAL DEPTH: 60.00 SURFACE ELEVATION: 154.7821 WATER DEPTH: 47.00		
DEPTH IN FEET	GRAPHIC LOG							SAMPLE DATA							DESCRIPTION		
	B O U L D E R S	C O B B L E S	C R E S S E D	M I N E R A L S	F I N E S S I L E S	S C A L E	S A M P L E #	B L O W S 6"	O V A P P M	C G I X L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M		U S C S S Y M B H N U	
0			X		X--X--X		23 45 0	0.0	0	N	B	DR	M,H	SM	0.0	ARTIFICIAL FILL (OAF). SILTY SAND, LIGHT BROWN, DRY, LOOSE, ROOT & COBBLES, CONCRETE FRAGMENTS, 30% SAMPLE RECOVERY.	
5			X		X--X--X--X		01 02 03 16 26	0.0	0	N	LB	DR	M,H	SM	0.0	ARTIFICIAL FILL (OAF). SILTY SAND, LIGHT BROWN, DRY, LOOSE, ROOT & COBBLES, CONCRETE FRAGMENTS, 100% SAMPLE RECOVERY. CLP SAMPLE.	
10					X--X--X		6 9 9	0.0	0	N	RB	SM	M,H	SM	0.0	SILTY FINE GRAINED SAND, RED/BROWN, DAMP MEDIUM DENSE, FINE ROOTLETS SCATTERED.	
15					X--X--X		04 05 06 07 12 30 40	0.0	0	N	YG	SM	M,H	SP	0.0	FINE TO COARSE GRAINED SAND, YELLOW/GREEN DAMP, MEDIUM DENSE. AT 18' 4" THICK SILTY CLAY. CLP SAMPLE.	
20					X--X		14 27 26	0.0	0	N	YB	SM	M,H	CL	0.0	SILTY CLAY, ORANGE/BROWN, DAMP, MEDIUM DENSE.	
25			X				08 09 10 11 18 35 47	12.0	0	N	LG	SM	M,H	CL-SP	0.0	SILTY CLAY TO 26', AT 26' COARSE GRAIN SAND, LIGHT GRAY, DAMP, DENSE. CLP SAMPLE.	
30					X--X		12 13 14 15 17 37 50	21.0	50	N	GY	SM	M,H	SP	0.0	FINE TO MEDIUM GRAIN SAND, GREENISH GRAY, DAMP, DENSE. NON CLP SAMPLE.	
35					X--X		16 17 18 19 45 50 50	71.0	5	N	GN	SM	M,H	SP	0.0	FINE GRAIN SAND, GREENISH GRAY, DAMP, DENSE. CLP SAMPLE.	
40					X--X		20 21 22 23 25 35 50	1000.0	5	N	GY	SM	M,H	SP	0.0	FINE TO MEDIUM GRAIN SAND, GREEN/GRAY, DAMP, DENSE. SHUT DOWN FOR THE NIGHT. AT 0839 09/15/88 CONTINUE BORING.	
45			X				24 25 25 30 39	0.0	0	N	Y/G	M	M,H	SD	0.0	AT 0830 09/15/88 CONTINUE DRILLING FROM 40' DEPTH. COARSE GRAIN SAND, YELLOW/GRAY, MOIST, MEDIUM DENSE/DENSE, WATER ENCOUNTERED AT 49'. NON CLP SAMPLE.	

0830

FIELD BORING LOG

OFS NUMBER:

SHEET 2

PROJECT NAME: WASTE DISPOSAL INC.
 LOCATION: SANTA FE SPRINGS
 CALIFORNIA

CLIENT NAME: EPA
 SITE MANAGER: D. MELCHIOR
 LOGGED BY: G. GALLOWAY

BORING NUMBER: SB-030
 BORING LOCATION: RESEVOIR AREA
 DRILLING CONTRACTOR: DATUM
 DRILLING METHOD: HSA
 BIT SZ/HAMMER WT/DROP: 7"/140#/30"
 SAMPLE RETRIEVAL SYS: SPLIT SPOON

DATE/TIME STARTED: 09/14/88 1345
 DATE/TIME COMPLETED: 09/15/88 0915
 TOTAL DEPTH: 60.00
 SURFACE ELEVATION: 154.7821
 WATER DEPTH: 47.00

DEPTH IN FT	GRAPHIC LOG							SAMPLE DATA										DESCRIPTION
	B O U L D E R S	C O S S	M C R E S S D D	F I N E S S A I L A Y	S C L A Y	S C L A Y	S C L A Y	S A M P L E #	B L O W S 6"	O V A P P M	C G I X L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M	U S C S S Y M B	H N U	
50			X--X						23 50 0	0.0	0	N	Y/B	WT	H,H	SP	0.0	BLOWS 23/6", 50/4"
55			X--X						45 50 0	0.0	0	N	Y/B	WT	H,H	SP	0.0	BLOWS 45/6", 50/4"
60			X--X						45 50 0	0.0	0	N	Y/B	WT	H,H	SP	0.0	BLOWS 45/6", 50/4" TOTAL DEPTH 60'. WATER AT 47'. HEAVING BELOW WATER TABLE. AT 0915 STARTED INSTALLING WELL.

FIELD BORING LOG

OFS NUMBER:										SHEET 1						
PROJECT NAME: WASTE DISPOSAL INC.						BORING NUMBER: SB-041		DATE/TIME STARTED: 09/19/88 1105								
LOCATION: SANTA FE SPRINGS CALIFORNIA						BORING LOCATION: RESERVOIR AREA		DATE/TIME COMPLETED: 09/19/88 1340								
CLIENT NAME: EPA						DRILLING CONTRACTOR: DATUM		TOTAL DEPTH: 40.00								
SITE MANAGER: D. MELCHIOR						DRILLING METHOD: HSA		SURFACE ELEVATION: 158.5018								
LOGGED BY: T. TOMCZYK						BIT SZ/HAMMER WT/DROP: 7"/140#/30"		WATER DEPTH: 0.00								
GRAPHIC LOG						SAMPLE DATA						DESCRIPTION				
D E P T H I N F T	B O U L D E R S	C O B L E S	C R S D	M S A N D	F I N E S I L T Y	S A M P L E #	B L O W S 6"	O V A P P M	C G I X L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M	U S C S S Y M B	H M U	
0					X--X	01 02 03	8 11 17	0.0	0	N	BR	SM	M	SM	0.0	BROWN TO LIGHT BROWN FILL MATERIAL(OAF), SILTY SAND. CLP SAMPLE. 1111
5					X--X--X	04 05 06	7 5 11	1000.0	0	SH	BL	SM	M-L	OL- ML	1.8	BLACK, STIFF, CLAY LIKE, VISIBLE CONTAMINATION. LAST 6" BROWN SILT & SAND. NON CLP SAMPLE. 1122
10					X--X		0 0 0	30.0	0	LH	BR	SM	M-L	SM	0.2	CONCRETE ENCOUNTERED AT 10'. NO SAMPLE POSSIBLE. DARK SILTY SAND IN TAILINGS. 1132
15					X	07 08 09	3 4 5	1000.0	0	SH	BL	WT	L	OH	0.4	BLACK MUD, VISIBLE CONTAMINATION, SUMP MATERIAL. 1150
20					X--X	10 11 12	2 3 3	1000.0	0	SH	BL	SM	M	OH- ML	2.5	FIRST SLEEVE SAME AS PREVIOUS; SECOND AND THIRD WERE GRAY SILT WITH FINE SAND. ZERO IN BREATHABLE OVA ZONE. CLP SAMPLE. 1205
25					X--X	13 14 15	4 3 5	1000.0	0	SH	G	SM	M-L	CL- ML	4.0	GRAY SILTY CLAY AND CLAYEY SUMP MATERIAL WITH SOME BLACK STREAKS. CLP SAMPLE. 1222
30					X--X		5 4 5	1000.0	10	N	G	SM	M	SM	7.0	GRAY SILTY SAND. NO VISIBLE CONTAMINATION. NO SAMPLE COLLECTED. 1240
35					X--X--X--X	16 17 18	38 60 6	1000.0	100	N	G	SM	M	SM	0.0	NO VISIBLE CONTAMINATION. GRAY FINE TO COARSE SAND. NON CLP SAMPLE. 1300
40					X--X--X	19 20 21	37 54 6	1000.0	60	N	G/G RN	SM	M-L	ML	0.0	GRAY GREEN SILT WITH CLAY AND MINOR FINE GRAINED SAND. ZERO OVA ON BREATHING ZONE. 1332

FIELD BORING LOG

OFS NUMBER:													SHEET 1			
PROJECT NAME: WASTE DISPOSAL INC.					BORING NUMBER: SB-042					DATE/TIME STARTED: 09/19/88 0850						
LOCATION: SANTA FE SPRINGS					BORING LOCATION: ATLAS STEEL					DATE/TIME COMPLETED: 09/19/88 1015						
CLIENT NAME: EPA					DRILLING CONTRACTOR: DATUM					TOTAL DEPTH: 35.00						
SITE MANAGER: D. MELCHIOR					DRILLING METHOD: HSA					SURFACE ELEVATION: 153.8000						
LOGGED BY: T. TOMCZYK					BIT SZ/HAMMER WT/DROP: 7"/140#/30"					WATER DEPTH: 0.00						
LOGGED BY: T. TOMCZYK					SAMPLE RETRIEVAL SYS: SPLIT SPOON											
DEPTH IN FEET	GRAPHIC LOG					SAMPLE DATA								DESCRIPTION		
	B -O U L D E R S	C O B L E S	C R S S E D	M E N D E D	F I N E S I L T C L A Y	S A M P L E #	B L O W S 6"	O V A P P M	C G I X L E L	O D O R	C O L O R	M O I S T U R E	P O R / P E M		U S C S S Y M B	H N U
0					X--X		24 26 14	10.0	0		B	SM		SM	1.6	EXPLOSIMETER=0. CONCRETE LODGED IN FIRST TWO SLEEVES. NO SAMPLE RETRIEVED. DITCH MATERIAL, BROWN SILT & SAND.
5					X--X--X	01 02 03	10 10 10	10.0	0	N	DB	SM	L-M	ML	20.0	DARK BROWN SILT WITH CLAY AND FINE SAND. CLP SAMPLE.
10					X--X--X	04 05 06	7 10 14	0.5	0	N	G	SM	L-M	ML	0.0	GRAY SILT WITH CLAY AND FINE SAND. CLP SAMPLE.
15					X--X		11 21 16	0.0	0	N	B	SM	L	CL	0.0	GRAY SILT WITH CLAY. NO SAMPLE COLLECTED.
20				X	X	07 08 09	7 21 29	0.0	0	N	B	SM	M	SM	0.0	GRAY, MEDIUM GRAINED SAND WITH SILT.
25				X			27 28 20	0.0	0	N	G	SM	M	SP	0.0	GRAY, MEDIUM GRAINED SAND. CHECKED TAILINGS. NO RECOVERY.
30				X--X			56 0 0	0.0	0	N	G	SM	M-H	SP	0.0	FINE TO MEDIUM GRAINED SAND, GRAY, NO SAMPLE COLLECTED.
35			X	X--X		10 11 12	20 40 25	0.0	0	N	B	SM	M	SM	0.0	FINE GRAINED SAND WITH SILT, SOME GRAVEL. NON CLP SAMPLE.

DEPTH IN FEET		PID OR FID (ppm)		PENETRATION RESISTANCE (BLOWS PER FOOT)		SAMPLE NO. AND TYPE		U.S.C.S.		PROFILE LITHOLOGY		BORING NO. <u>HAB-4-03</u> DRILLING CO./RIG <u>WEST HAZMAT</u> SAMPLER TYPE <u>SPLIT SPOON</u> AND DIMENSION <u>2.5"X18"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____		SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>NM</u> E. <u>NM</u> DATE BEGAN: <u>6-12-95 10:40</u> DATE FINISHED: <u>6-12-95 12:15</u> GROUND SURFACE EL.: <u>NM</u>	
												DESCRIPTION			
0						WDI-HAB		sm		[Pattern]		Brown silty fine to medium sand, damp to dry, loose - moist			
5				21						[Pattern]					
950		13		4-03-07		ml				[Pattern]		No recovery first and second attempt, water saturated - green gray and black silt, very soft, saturated, oil staining and odor			
10		2775		8		4-03-10				[Pattern]					
15		1850		10		4-03-15				[Pattern]					
20		850		11		4-03-20				[Pattern]					
25		400		13		4-03-25				[Pattern]					
30		1200		73		4-03-30		sp		[Pattern]					
35		210		84		4-03-35				[Pattern]					
40		80		75		4-03-40				[Pattern]		End of Boring: 40 feet. No ground water. Minor caving. FID background 5.0 ppm.			

94-256PPDR-04 REV. 7/5/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HAB-4-04</u>	SHEET <u>1</u> OF <u>1</u>
						DRILLING CO./RIG <u>WEST HAZMAT</u> SAMPLER TYPE <u>SPLIT SPOON</u> AND DIMENSION <u>2.5"X18"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	COORDINATES N. <u>4094002.46</u> E. <u>4271566.71</u> DATE BEGAN: <u>6-12-95 9:10</u> DATE FINISHED: <u>6-12-95 10:15</u> GROUND SURFACE EL.: <u>155.38</u>
						DESCRIPTION	
0			WDI-HAB	sm		Brown silty fine to medium sand, dry to damp, loose to medium dense	
5	400	10	4-04-05			Black and green brown mottled silt, wet, soft, oil staining and slight oil odor	
10	525	4	4-04-10	ml			
15	535	5	4-04-15				
20	2100	8	4-04-20				
25	95	80	4-04-25			Light yellow brown sand, moist, dense	
30	6	77	4-04-30	sp			
35	47	74	4-04-35				
40	7	80	4-04-40			- slightly silty	
						End of Boring: 40 feet. No ground water. No caving. FID background 4.5 ppm.	

94-256PPDR-04 REV. 7/5/95

CLIENT: WASTE DISPOSAL, INC.PROJECT NO.: 94-256LOCATION: SANTA FE SPRINGS, CALIFORNIA**ENVIRONMENTAL SOLUTIONS, INC.**

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-13</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER <u>C. VRABEL</u> GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4094004.43</u> E. <u>4271347.63</u> DATE BEGAN: <u>6-6-95 10:35</u> DATE FINISHED: <u>6-6-95 11:30</u> GROUND SURFACE EL.: <u>160.66</u>
0			WDI-HPB	sm		Brown silty fine to medium sand, damp to dry, loose	
5	5.0		4-13-05			Refusal at 5 feet (moved 3 feet north and continued) - brick, glass, concrete debris	
10	7.0		4-13-10	ml		Brown sandy silt, soft, wet - oil staining and odor at 10 to 11 feet	
15	27.0		4-13-15			End of Boring: 15 feet. No ground water. No caving. FID background 4.0 ppm.	

94-256PPDR-02 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-14</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4094043.00</u> E. <u>4271379.45</u> DATE BEGAN: <u>6-6-95 12:45</u> DATE FINISHED: <u>6-6-95 1:20</u> GROUND SURFACE EL.: <u>161.62</u>
0			WDI-HPB	sm		DESCRIPTION Brown silty fine to medium sand, damp, loose - oil staining and odor beginning at 4 feet	
5	40		4-14-05				
				ml		Green gray silt, wet, very soft, 6-9 foot sample consolidated to 1 foot length upon sampling - oil odor and staining - black crude oil/tar	
10	170		4-14-10			End of Boring: 10 feet. Refusal at concrete. No ground water. Minor caving. FID background 4.0 ppm.	

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

94-256PPDR-02 REV. 10/10/95

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-15</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4094077.76</u> E. <u>4271407.95</u> DATE BEGAN: <u>6-6-95 1:30</u> DATE FINISHED: <u>6-6-95 1:50</u> GROUND SURFACE EL.: <u>106.66</u>
						DESCRIPTION	
0			WDI-HPB			Brown silty fine sand, dry, loose	
						- glass, concrete	
5	14		4-15-05	sm		- oil staining and odor	
						- concrete	
10	NA		4-15-10			- oil staining and odor at 8.5 to 9.5 feet	
						End of Boring: 10 feet. Refusal at concrete. No ground water. Minor caving. FID background 4.5 ppm.	

94-256PPDR-02 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	DESCRIPTION
BORING NO. <u>HPB-4-16</u>						SHEET <u>1</u> OF <u>1</u>
DRILLING CO./RIG <u>TEG</u>						COORDINATES N. <u>4094116.05</u> E. <u>4271440.16</u>
SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u>						DATE BEGAN: <u>6-6-95 2:00</u>
FIELD ENGINEER GEOLOGIST <u>C. VRABEL</u>						DATE FINISHED: <u>6-6-95 4:00</u>
EDITED BY <u>C. VRABEL</u>						GROUND SURFACE EL.: <u>161.41</u>
CHECKED BY _____						
0	.		WDI-HPB			Brown silty fine sand, damp, loose, brick and concrete fragments
5	10		4-16-05	sm		Black brown/gray brown silty sand, moist, medium dense oil stained with slight odor
10	27		4-16-10	ml		Green brown, sandy silt, moist, medium stiff, oil staining and odor
				sp		Black gravelly sand, saturated, medium dense, oil staining and odor. (Driller noted 14" of liquid in open hole between sampling)
15	22		4-16-15	ml		Black-green brown, semi liquid/silt with minor gravel, saturated with oil, oil odor
				sp		Black sand with gravel, saturated with oil, medium dense
20	800		4-16-20	ml		Black-green brown silt, oil saturated, soft, very pliable
End of Boring: 24 feet. No ground water. Minor caving. FID background 4.5 ppm.						

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

94-256PPDR-02 REV. 10/10/95

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	<div style="display: flex; justify-content: space-between;"> <div> BORING NO. <u>HPB-4-17</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____ </div> <div style="text-align: right;"> SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4034150.95</u> E. <u>4271468.44</u> DATE BEGAN: <u>6-7-95 7:35</u> DATE FINISHED: <u>6-7-95 8:15</u> GROUND SURFACE EL.: <u>162.37</u> </div> </div>
0			WDI-HPB	sm		Brown silty fine to medium sand, dry to damp, loose, brick and concrete fragments
5	3.0		4-17-05			Red brown silty fine sand, moist, medium dense, minor porosity and mottling
10	3.0		4-17-10			
15	3.0		4-17-15			End of Boring: 15 feet. No ground water. Minor caving at the surface. FID background 3.0 ppm.

94-256PPDR-02 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-18</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER/GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4094096.40</u> E. <u>4271533.74</u> DATE BEGAN: <u>6-7-95 8:23</u> DATE FINISHED: <u>6-7-95 8:45</u> GROUND SURFACE EL.: <u>160.61</u>
0			WDI-HPB			DESCRIPTION	
				sm		Brown silty fine to medium sand, dry to damp, loose	
5	3.0		4-18-05				
10	6.0		4-18-10			Gray brown silty fine sand, moist, loose	
						Red brown silty fine sand, moist to wet, medium dense	
15	3.0		4-18-15	ml		Red brown sandy silt, moist, stiff	
End of Boring: 15 feet. No ground water. No caving. FID background 3.0 ppm.							

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

94-256PPDR-02 REV. 10/10/95

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-19</u>	SHEET <u>1</u> OF <u>1</u>
						DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	COORDINATES N. <u>4094044.92</u> E. <u>4271596.51</u> DATE BEGAN: <u>6-7-95 9:00</u> DATE FINISHED: <u>6-7-95 9:45</u> GROUND SURFACE EL.: <u>156.66</u>
						DESCRIPTION	
0			WDI-HPB			Brown silty fine to medium sand, dry to damp, loose, concrete fragments	
5	3.0		4-19-05	sm		- refusal at 3 feet due to concrete (moved 1 foot west and continued)	
						Red brown silty sand, moist to wet, medium dense	
10	3.5		4-19-10	ml		Red brown sandy silt, moist, medium stiff to stiff	
15	3.5		4-19-15			End of Boring: 15 feet. No ground water. No caving. FID background 3.5 ppm.	

94-256PPDR-02 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-20</u>	SHEET <u>1</u> OF <u>1</u>
						DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	COORDINATES N. <u>4094000.05</u> E. <u>4271649.98</u> DATE BEGAN: <u>6-7-95 10:00</u> DATE FINISHED: <u>6-7-95 10:30</u> GROUND SURFACE EL.: <u>154.18</u>
						DESCRIPTION	
0			WDI-HPB			Brown silty fine to medium sand, dry to damp, loose, brick and concrete fragments	
				sm		- wet at 4 feet	
5	3.5		4-20-05			Red brown silty very fine sand, moist, loose to medium dense	
				sm			
				ml		Red brown very fine sandy silt, moist, soft	
10	3.5		4-20-10			Red brown silty very fine sand, moist, loose to medium dense	
	3.5		4-20-11				
				sm			
				ml		Gray brown silt, moist, stiff	
15	3.0		4-20-15			Light yellow brown very fine sand, moist, medium dense	
						End of Boring: 15 feet. No ground water. No caving. FID background 4.0 ppm.	

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

94-256PPDR-02 REV. 10/10/95

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	DESCRIPTION
BORING NO. <u>HPB-4-21</u>						SHEET <u>1</u> OF <u>1</u>
DRILLING CO./RIG <u>TEG</u>						COORDINATES N. <u>4093931.11</u> E. <u>4271592.64</u>
SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u>						DATE BEGAN: <u>6-7-95 10:35</u> DATE FINISHED: <u>6-7-95 11:05</u>
FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u>						GROUND SURFACE EL.: <u>154.52</u>
EDITED BY <u>C. VRABEL</u>						
CHECKED BY _____						
0			WDI-HPB	sm		Brown silty fine to medium sand, dry, loose, minor brick and concrete - refusal at 1.5 feet, moved 1 foot south and continued
5	3.5		4-21-05	ml		Red brown very fine sandy silt, moist, soft to medium stiff - wet at 8 feet
10	3.5		4-21-10	sm		Red brown silty fine sand, moist, medium dense
				ml		Gray brown silt, moist, stiff
15	3.0		4-21-15	sp		Light yellow brown, very fine sand, moist, medium dense
End of Boring: 15 feet. No ground water. No caving. FID background 3.5 ppm.						

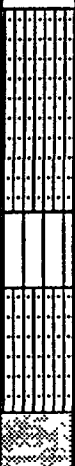
CLIENT: WASTE DISPOSAL, INC.

94-256PPDR-03 REV. 10/10/95

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-22</u>		SHEET <u>1</u> OF <u>1</u>	
						DRILLING CO./RIG <u>TEG</u>	COORDINATES N. <u>4093972.01</u> E. <u>4271540.63</u>		
						SAMPLER TYPE <u>CONTINUOUS</u>	DATE BEGAN: <u>6-7-95 3:10</u>		
						AND DIMENSION <u>1.5"X36"</u>	DATE FINISHED: <u>6-7-95 4:00</u>		
						FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u>	GROUND SURFACE EL.: <u>155.74</u>		
						EDITED BY <u>C. VRABEL</u>			
						CHECKED BY _____			
						DESCRIPTION			
0			WDI-HPB			Brown silty fine to medium sand, dry, loose (2 borings to 12 inches, refusal in concrete/brick. Moved 5 feet north and continued)			
5	5.0		4-22-05	sm		- brick from 1.5 to 3 feet			
				ml		- moist, medium dense			
10	400		4-22-10	sm		Green brown to brown silt, saturated, soft, slight oil odor			
						Green brown silty sand, moist, medium dense, slight oil odor			
15	8.5		4-22-15	sp		dark gray slightly silty sand, moist, medium dense, slight oil odor			
End of Boring: 15 feet. No ground water. No caving. FID background 4.0 ppm.									

94-256PPDR-03 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET		PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-23</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4093937.32</u> E. <u>4271510.75</u> DATE BEGAN: <u>6-7-95 2:25</u> DATE FINISHED: <u>6-7-95 3:00</u> GROUND SURFACE EL.: <u>155.27</u>
							DESCRIPTION	
0				WDI-HPB	sm		Brown silty fine to medium sand, dry, loose - red brown, damp	
5	5.0			4-25-05	sp		Dark brown/gray brown slightly silty coarse sand with minor gravel, dry, loose - slight oil odor	
10	800			4-25-10	ml		6-9 feet no recovery - black semi liquid coarse sand, loose, oil staining Black to green brown sands and silts sampled from 7 to 12 feet to provide recovery, sample consolidated to 3 feet length, slight oil odor, semi liquid, very soft	
15	6,000			4-25-15			- wet, moderately dense	

End of Boring: 15 feet.
 No ground water.
 Caving from 6 to 15 feet.
 FID background 5.0 ppm.

94-256PPDR-03 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.PROJECT NO.: 94-256LOCATION: SANTA FE SPRINGS, CALIFORNIA**ENVIRONMENTAL SOLUTIONS, INC.**

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	DESCRIPTION
BORING NO. <u>HPB-4-24</u>						SHEET <u>1</u> OF <u>1</u>
DRILLING CO./RIG <u>TEG</u>						COORDINATES N. <u>4093856.51</u>
SAMPLER TYPE <u>CONTINUOUS</u>						E. <u>4271530.87</u>
AND DIMENSION <u>1.5"X36"</u>						DATE BEGAN: <u>6-7-95 11:15</u>
FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u>						DATE FINISHED: <u>6-7-95 11:35</u>
EDITED BY <u>C. VRABEL</u>						GROUND SURFACE EL.: <u>154.37</u>
CHECKED BY _____						
0			WDI-HPB	sm		Brown silty fine to medium sand, dry, loose
5.0			4-24-02	ml		Light gray silt, moist, low density
3.5			4-29-05	sm		Brown silty sand, moist to wet, medium dense
						- dry, medium dense to loose
200			4-24-10	sp		Dark gray to black medium sand, moist, medium dense, no odor
15	10.0		4-24-15	sm		Green brown very fine sandy silt, moist stiff to very stiff, micaceous, no odor or visible oil staining
End of Boring: 15 feet. No ground water. No caving. FID background 4.0 ppm.						

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

94-256PPDR-03 REV. 10/10/95

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-25</u> DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>CONTINUOUS</u> AND DIMENSION <u>1.5"X36"</u> FIELD ENGINEER/ GEOLOGIST <u>C. VRABEL</u> EDITED BY <u>C. VRABEL</u> CHECKED BY _____	SHEET <u>1</u> OF <u>1</u> COORDINATES N. <u>4090399.18</u> E. <u>4271477.87</u> DATE BEGAN: <u>6-7-95 1:25</u> DATE FINISHED: <u>6-7-95 2:20</u> GROUND SURFACE EL.: <u>154.67</u>
0			WDI-HPB	sm		DESCRIPTION	
						Green brown/brown silty fine to medium sand, dry, loose, gravel and concrete	
5	5.0		4-25-05	ml		Dark gray to black silt with minor gravel, soft, oil saturated and odor - (refusal at 6 feet, moved; refusal at 4 feet, moved; refusal at 3 feet, moved; refusal at 3 feet, moved 5 feet north and continued sampling)	
10	135		4-25-10			Dark green to brown/black silt, very soft, very saturated semi liquid upon removal of probe, hole closes on itself, plus approximately 12 inches of standing liquid, oil odor	
135	135		4-25-11				
End of Boring: 11 feet, refusal (concrete). No ground water. Caving from 6 to 11 feet. FID background 4.5 ppm.							

94-256PPDR-03 REV. 10/10/95

CLIENT: WASTE DISPOSAL, INC.

PROJECT NO.: 94-256

LOCATION: SANTA FE SPRINGS, CALIFORNIA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE LITHOLOGY	BORING NO. <u>HPB-4-26</u>		SHEET <u>1</u> OF <u>1</u>	
						DRILLING CO./RIG <u>TEG</u>	COORDINATES N. <u>4093952.78</u> E. <u>4271411.71</u>		
						SAMPLER TYPE <u>CONTINUOUS</u>	DATE BEGAN: <u>6-7-95 4:05</u>		
						AND DIMENSION <u>1.5"X36"</u>	DATE FINISHED: <u>6-7-95 4:40</u>		
						FIELD ENGINEER GEOLOGIST <u>C. VRABEL</u>	GROUND SURFACE EL.: <u>157.75</u>		
						EDITED BY <u>C. VRABEL</u>			
						CHECKED BY _____			
DESCRIPTION									
0			WDI-HPB	sm		Brown silty fine to medium sand, loose, dry; gravel, brick and concrete			
						- light gray silt (sludge?) 2.5 to 3.5 feet, some gravel			
						- concrete			
5	6.5		4-26-05			- refusal at 7 feet (concrete) moved 5 feet north			
						- refusal at 8.5 feet (concrete) moved 5 feet north			
						- refusal at 8.5 feet			
						End of Boring: 8.5 feet. Refusal (concrete). No ground water. No caving. FID background 4.5 ppm.			

CLIENT: WASTE DISPOSAL, INC.

94-256PPDR-03 REV. 10/10/95

PROJECT NO.: 94-256

ENVIRONMENTAL SOLUTIONS, INC.

LOCATION: SANTA FE SPRINGS, CALIFORNIA

DEPTH IN FEET		PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE (recovery)	U.S.C.S.	PROFILE/ LITHOLOGY	BORING NO. <u>WDE-TS-26</u>		SHEET <u>1 OF 1</u>	
							DRILLING CO/RIG <u>TEG</u>	COORDINATES N <u>NM</u>		
							SAMPLER TYPE <u>Continuous Core</u>	COORDINATES E <u>NM</u>		
							AND DIMENSION <u>1" x 2"</u>		DATE BEGAN <u>10-24-97</u>	
							FIELD ENGINEER <u>A. Isaly</u>		DATE FINISHED <u>10-24-97</u>	
							EDITED BY <u>A. Isaly</u>			
							CHECKED BY _____		GROUND SURFACE EL. <u>NM</u>	
							DESCRIPTION			
0		NA		0735	1.6'	ml/sm	(6"-1.1') Silty Sand to Sandy silt; Brown to light brown, trace of coarse sand, trace of vegetation, dry, no staining (1.1'-1.7') Sand; Brown, to light brown, med to coarse grained, trace of silt, white coarse macerals, dry, no staining (1.7'-2') White material - possibly sandstone (2.0'-2.1') dry, no odor, no staining. (2.1'-3.2') Similar material as (1.7'-2') core. No staining (3.2'-4') Silt, Brown, trace of coarse sand, micaceous, dry, no odor, no staining (4.4'-6') Silty Sand to sandy silt; Brown, trace of coarse sand, micaceous, slightly moist, no odor, no staining.			
5			0740	1.2'	ml/sm					
			0745	1.8'	ml/sm					
			0750	2'	U/ml					
10			0755	2'	ml/sm					
			0800	2'						
			0805	1.8'						
15			0810	1.8'	SW		(6'-8') Silty clay to clay silt; Dark brown, trace of sand, micaceous, med. plasticity, dry, no odor, no staining (8'-10') Silty Sand to sandy silt, dark brown to dark gray, trace of med. to coarse sand, micaceous, slightly moist, no odor, no staining (10'-12') Similar material as 8'-10' core. No odor, no staining (12.4'-14') Sand; Gray, med. to coarse grained, well graded, slightly moist, no odor, no staining (14.4'-16') Similar material as 12.4'-16' core. No odor, no staining. (16'-18') (18'-20') (20'-22')			
							<p>Total Depth: 16 Feet</p> <p>No ground water during drilling.</p> <p>Backfilled with bentonite pellets.</p> <p>~ 25' NE of fence line</p> <p>Did not encounter sump material.</p> <p>NM - Not Measured</p> <p>NA - Not Applicable</p> <p>CC - Continuous Core</p>			

A-FIELD/FMB REV. 03/20/92

CLIENT UNOCAL

(ALL FIELD LOGGING ON THIS FORM, ORIGINAL TO PROJECT FILES)

PROJECT NO. 94-256

ENVIRONMENTAL SOLUTIONS, INC.

LOCATION WDE

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION-RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE (See Survey)	U.S.C.S.	PROFILE/ LITHOLOGY	BORING NO. <u>WDI-TS-27</u>		SHEET <u>1</u> OF <u>1</u>	
						DRILLING CO/RIG <u>TEB</u>	COORDINATES N <u>NW</u> E <u>NW</u>		
						SAMPLER TYPE <u>Continuous Core</u>		DATE BEGAN <u>10-24-97</u>	
						AND DIMENSION <u>1" x 2"</u>		DATE FINISHED <u>10-24-97</u>	
						FIELD ENGINEER <u>A. Isely</u>		GROUND SURFACE EL. <u>NW</u>	
						EDITED BY <u>A. Isely</u>			
						CHECKED BY _____			
DESCRIPTION									
0	NA	0845	1.1'	m/sm		(11"-2') Silty sand to sandy silt; Brown to light brown, trace of gravel and coarse sand, well graded, clay, no odor, no staining.			
5		0850	8"	sw		(3.4'-4') Sand; Brown to light brown, mud to coarse grained, trace of gravel, black material (rock), well graded, micaceous, clay, no odor, no staining.			
		0900	10"			(5.2'-5.10') Similar material as 3.4'-4' core no staining. (5.10'-6') Silty clay to clayey silt, dark brown to black, moist, slight hydrocarbon odor, possibly stained.			
		0905	11"	cl/ml		(7.1'-8') Similar material as 5.10'-6' core. olive green, black material interbedded, hydrocarbon odor, stained.			
10		0910	1'			(9'-10') Similar material as 7.1'-8' core. Black to olive green, increase in sand content, strong hydrocarbon odor, stained.			
		0915	1.5'	cl		(11'-12') Clay; Dark brown to dark gray, trace of sand, moist, strong hydrocarbon odor, hydrocarbon staining.			
15		0945	9'			(12.7'-14') Similar material as 11'-12' core. strong hydrocarbon odor, increase in hydrocarbon staining.			
		0955	1.7'	cl/ml		(15.3'-16') Silty clay to clayey silt, olive green, trace of sand, moist, slight hydrocarbon odor, possibly stained.			
20		1015	0'			(16.5'-18') Similar material as 15.3'-16' core. strong odor, increase in hydrocarbon staining.			
		1030	1.6'			(18'-20') No Recovery.			
25						(20.6'-22') Similar material as 16.5'-18'. Strong odor. Hydrocarbon staining.			
<p>Total Depth: 22 FEET</p> <p>No ground water during drilling.</p> <p>Backfilled with bentonite pellets.</p> <p>Contacted sump material at ~ 5.10" to 22'.</p> <p>NA- Not Applicable NW- Not Measured CC- Continuous Core</p>									

A-FIELD/FMB REV. 03/20/92

CLIENT UNOCAL

PROJECT NO. 94-256

LOCATION WDI

(ALL FIELD LOGGING ON THIS FORM, ORIGINAL TO PROJECT FILES)

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION-RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE (Recovery)	U.S.C.S.	PROFILE/ LITHOLOGY	BORING NO. <u>WID1-TS-28</u>		SHEET <u>1</u> OF <u>1</u>	
						DRILLING CO/RIG <u>TEB</u>	COORDINATES	N <u>NM</u>	E <u>NM</u>
						SAMPLER TYPE <u>Continuous Core</u>	AND DIMENSION <u>1" x 2"</u>	DATE BEGAN <u>10-24-97</u>	DATE FINISHED <u>10-24-97</u>
						FIELD ENGINEER <u>A. Isaly</u>	CHECKED BY <u>A. Isaly</u>		
						GROUND SURFACE EL. <u>NM</u>			
DESCRIPTION									
0	NA	1100	CC	m/km		(7"-2') Silty Sand to Sandy Silt; Brown to Light brown, trace of coarse grained sand, well graded, dry, no odor, no staining.			
		1105	1.6'			(2.6'-3.7') Similar material as 7"-2' core. No odor, no staining.			
5		1110	8"	cl		(3.7'-4') Clay, brown, trace of sand, moist, no odor, no staining.			
		1115	9"			(5.4'-6') Similar material as 3.7'-4' core. Slight hydrocarbon odor, no staining.			
10		1120	2'	sw		(7.3'-8') Sand; Dark gray to black, med to coarse grained, trace of gravel, well graded, saturated, strong hydrocarbon odor, stained.			
		1125	1.10"			(8'-10') Clay, black, trace of sand, saturated, oily sheen, strong hydrocarbon odor, stained (hydrocarbon).			
15		1130	1.11"	cl		(10.2'-12') Silty, tan material as 5'-10' core. (10.2'-10.9') Black, stained, strong odor. (10.9'-12') olive green, hydrocarbon odor and staining.			
		1135	1.3'			(12.1'-14') Similar material as 10.9'-12' core. Strong hydrocarbon odor, stained.			
		1140	2'			(14.9'-16') Similar material as 12.1'-14' core. Olive green to dark brown, strong hydrocarbon odor, hydrocarbon stained.			
20		1150	2'			(16'-18') Similar material as 14.9'-16' core. Strong odor, stained.			
		1200	1.7'			(18'-20') Similar material as 16'-18' core. Strong odor, stained.			
		1205	2'			(20.5'-22') Similar material as 18'-20' core. Strong odor, stained.			
25		1215	2'			(22'-24') Similar material as 20.5'-22' core. Strong odor, stained.			
						(24'-26') Similar material as 22'-24' core. Strong odor, stained.			
<p>Total Depth: 26 FEET</p> <p>Backfilled with bentonite pellets</p> <p>No ground water during drilling.</p> <p>Confined sump material from ~7.3' to 26'.</p> <p>NM - Not Measured</p> <p>NA - Not Applicable</p> <p>CC - Continuous Core</p>									

A-FIELD/FMB REV. 03/20/92

CLIENT UNOCAL

PROJECT NO. 94-256

LOCATION WA1

(ALL FIELD LOGGING ON THIS FORM, ORIGINAL TO PROJECT FILES)

ENVIRONMENTAL SOLUTIONS, INC.

Boring No. .

MONITORING WELL WOI-TS-06 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE (REF.)	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO/RIG <u>TEG</u> SAMPLER TYPE <u>Cont. Core</u> AND DIMENSION <u>1" x 2"</u>		COORDINATES N <u>NM</u> E <u>NM</u>		
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u> EDITED BY <u>A. Isaly</u> CHECKED BY _____		DATE BEGAN <u>11-5-97</u> DATE FINISHED <u>11-5-97</u> GROUND SURFACE EL. <u>NM</u>		
							DESCRIPTION				
0	NA	1030	CC 9"				(1.3'-2') Silty Sand to Sandy Silt, light brown, trace of coarse sand and gravel, micaceous, dry. No odor, No staining.				
		1035	1.1'				(2.11'-4') Similar material as 1.3'-2' core. No odor. No staining.				
5		1040	9"				(5.3'-6') Similar material as 2.11'-4' core. No odor. No staining.				
		1045	1.1'	ml/sm			(6.11'-8') Similar material as 5.3'-6' core. No odor. No staining.				
10		1050	6"				(9.6'-10') Similar material as 6.11'-8' core. No odor. No staining.				
		1055	1'				Rock Fragments, No odor, No staining.				
15		1100	1.5'				(11'-11.7') Similar material as 9.6'-10' core. No odor, No staining.				
		1105	2'				(11.7'-12') Increase in silt content, brown, micaceous, slightly moist, No odor, No staining.				
		1110	1.6"				(12.7'-14') Similar material as 11.7'-12' core. No odor, No staining.				
20		1115	2'				No staining				
							(14'-16') Similar material as 12.7'-14' core. Increase in density, No odor, No staining.				
25							(16.6'-18') Similar material as 14'-16' core. No odor, No staining.				
							(18'-20') Similar material as 16.6'-18' core. No odor, No staining. G (very dense)				
30							Did not encounter impacted soil.				
35							Total Depth: 20 FEET				
							Did not encounter liquids.				
40							Backfilled with bentonite pellets.				
							NA - Not Applicable				
							NM - Not Measured				
							CC - Continuous Core				

Client UNocal
 PROJECT NAME UNocal
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

A-Field/Blank MW Log REV. 04/06/92

ENVIRONMENTAL SOLUTIONS, INC.

Boring No.

MONITORING WELL WOI-TS-87 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>Cont. Core</u> AND DIMENSION <u>1" x 2'</u>		COORDINATES N <u>NM</u> E <u>NM</u>		
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u>		DATE BEGAN <u>11-5-97</u> DATE FINISHED <u>11-5-97</u>		
							EDITED BY <u>A. Isaly</u>		GROUND SURFACE EL. <u>NM</u>		
							DESCRIPTION				
0	NA	1210	CC 1.3'				(9"-2') Silty Sand to Sandy Silt, Light brown, trace of coarse sand, micaceous, dry, No odor, No staining. (2.2'-4') Similar material as 9"-2' Core. Very dense, No odor, No staining. (Difficult drilling) (4'-6') similar material as 2.2'-4' core. No odor, No staining. (6'-8') similar material as 4'-6' core. No odor. No drilling. (8.4'-10') Sand, light brown, med. to coarse grained, trace of silt, well graded, dry, No odor, No staining. (10'-12') similar material as 8.4'-10' core. Very dense (diff. cut drilling), No odor, No staining.				
		1215	1.10'								
5		1220	2'	ml/Sn							
		1225	2'								
10		1230	1.8'								
		1235	2'	SW							
15							Did not encounter impacted soil				
20											
25											
30											
35							Total Depth: 12 feet Did not encounter liquids Backfilled with bentonite pellets NA - Not Applicable NM - Not Measured CC - Continuous Core				
40											

CLIENT PROJECT NAME Unocal
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

A-Field/Blank MW Log REV. 04/06/92

ENVIRONMENTAL SOLUTIONS, INC.

Boring No.

MONITORING WELL WOI-TS-88 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>Cont. Core</u> AND DIMENSION <u>1" x 2"</u>		COORDINATES N <u>NM</u> E <u>NM</u>		
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u> EDITED BY <u>A. Isaly</u> CHECKED BY _____		DATE BEGAN <u>11-5-97</u> DATE FINISHED <u>11-5-97</u> GROUND SURFACE EL. <u>NM</u>		
							DESCRIPTION				
0	NA	1300	CC				(0'-2') Silty Sand to Sandy Silt, Light brown, trace of coarse sand and gravel, micaceous, dry, No odor, No staining.				
		1305	2'	m/Sm			(2'-4') Similar material as 0'-2' core. Dark brown, No gravel, fine grained sand, micaceous, dry, No odor, No staining.				
5		1310	1.8'				(4'-6') Similar material as 2'-4' core. Trace of clay, dense, No odor, No staining.				
		1315	2'	cl/sc			(6'-8') Sandy Clay to Clayey Sand, fine to med. grained, micaceous, slightly moist, No odor, No staining.				
10		1320	1.9'				(8'-10') Sand, Red brown, fine to med. grained, trace of silt, well graded, slightly moist, No odor, No staining.				
		1325	1.9'	Sw			(10.3'-11.5') Similar material as 8.3'-10' core. No odor, No staining.				
15		1330	1.6'				(11.5'-12') med. to coarse grained, well graded, No odor, No staining.				
		1335	1.8'				(12.6'-14') Similar material as 11.5'-12' core. Light brown, dense, No odor, No staining.				
20		1340	2'	ml			(14.4'-16') Similar material as 12.6'-14' core. No odor, No staining.				
							(16'-17.6') Similar material as 14.4'-16' core. No odor, No staining.				
25							(17.6'-18') Silt, light brown, micaceous, dry, No odor, No staining.				
30							Did not encounter impacted material				
35							Total Depth: 18 FEET				
40							Did not encounter liquids				
							Backfilled with Bentonite pellets.				
							NA - Not Applicable				
							NM - Not Measured				
							CC - Continuous Core				

Client PROJECT NAME Unocal
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

ENVIRONMENTAL SOLUTIONS, INC.

Boring No.

MONITORING WELL W01-TS-89 SHEET 1 OF 1					
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY
0	NA	1350	CC		
		1355	10"	ml/sm	
5		1400	1'		
		1405	1.5'		
10		1410	1.6'	cl/sc	
		1415	1.9'		
		1420	1.7'		
15		1425	1.9'	Sw	
		1430	1.6'		
20		1435	2'	ml	

WELL CONSTRUCTION DETAIL		DESCRIPTION
DRILLING CO/RIG	TEG	(1.4'-2') Silty Sand to Sandy Silt, light brown, trace of gravel and coarse sand, micaceous, dry, No odor, No staining
SAMPLER TYPE AND DIMENSION	Cont. Core 1" x 2"	(3.2'-4') Similar material as 1.4'-2' core. Brown, No odor, No staining.
FIELD ENGINEER/ GEOLOGIST	A. Isaly	(5'-6') similar material as 3.2'-4' core. Increase in silt content. No odor, No staining
EDITED BY	A. Isaly	(6.7'-8') similar material as 5'-6' core. Red brown, No gravel, fine to med. grained sand, No odor, No staining
CHECKED BY		(8.6'-10') Sandy Clay to Clayey Sand, Red brown, med. grained sand, stiff, micaceous, slightly moist, No odor, No staining.
		(10.3'-12') Sand, Red brown, med to coarse grained, trace of silt, well graded, slightly moist, No odor, No staining.
		(12.5'-14') Similar material as 10.3'-12' core. No odor. No staining.
		(14.3'-16') Similar material as 12.5'-14' core. Light brown, No odor, No staining.
		(16.6'-18') Similar material as 14.3'-16' core. No odor. No staining.
		(18'-19.4') Similar material as 16.6'-18' core. No odor. No staining
		(19.4'-20') Silt, Light brown, micaceous, slightly moist, No odor, No staining

Did not encounter impacted soil.

TOTAL DEPTH: 20 FEET

Did not encounter liquids

Backfilled with bentonite pellets.

NA - Not Applicable
 NM - Not Measured
 CC - Continuous Core

Client PROJECT NAME Unocal

A-Field/Blank MW Log REV. 04/06/92

PROJECT NO. 94-256

ENVIRONMENTAL SOLUTIONS, INC.

LOCATION Santa Fe Springs, CA

Boring No.

MONITORING WELL WOI-TS-92 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO/RIG <u>TEG</u> SAMPLER TYPE <u>Cont. Core</u> AND DIMENSION <u>1" x 2"</u>		COORDINATES N <u>NM</u> E <u>NM</u>		
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u> EDITED BY <u>A. Isaly</u> CHECKED BY _____		DATE BEGAN <u>11-6-97</u> DATE FINISHED <u>11-6-97</u> GROUND SURFACE EL. <u>NM</u>		
							DESCRIPTION				
0	NA	0830	CC 9"				(1.3'-2') Silty Sand to Sandy Silt, Brown, trace of gravel and coarse sand, micaceous, clay, no odor, no staining.				
		0835	1'	ml/sm			(3'-4') similar material as 1.3'-2' core. No odor, no staining.				
5		0840	1.2'				(4.10'-6') similar material as 3'-4' core. Slightly moist, no odor, no staining.				
		0845	1.8'				(6.4'-9') similar material as 4.10'-6' core. Increase in silt content, increase in grain size.				
10		0850	1.9'	cl/ml			material, no odor, no staining.				
		0855	1.5'				(8.3'-10') Silty Clay to Clayey Silt, Red brown, trace of sand, micaceous, no odor, no staining.				
15		0900	2'	cl			(10.7'-12') similar material as 8.3'-10' core. Increase in clay content, no odor, no staining.				
		0905	2'	cl/sc			(12'-14') Clay, Red brown, high plasticity, slightly moist, no odor, no staining.				
20		0910	1.6'	ml/sm			(14'-16') Silty Clay to Clayey Silt, light brown, fine to med. grained sand, micaceous, slightly moist, no odor, no staining.				
		0915	1.10"	sp			(16.6'-18') Silty Sand to Sandy Silt, light brown, fine grained sand, micaceous, slightly moist, no odor, no staining.				
25							(18.2'-20') Sand, Red to light brown, fine to med. grained, poorly grained, slightly moist, no odor, no staining.				
30							Did not encounter expected soil.				
35							Total Depth: 20 FEET				
40							Did not encounter liquids.				
							Bore filled with bentonite pellets.				
							NA - Not Applicable				
							NM - Not Measured				
							CC - Continuous Core				

CLIENT PROJECT NAME Unocal
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

ENVIRONMENTAL SOLUTIONS, INC.

Boring No.

MONITORING WELL WDI-TS-93 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO/RIG <u>TEG</u> SAMPLER TYPE <u>Cont. Core</u> AND DIMENSION <u>1" x 2"</u>		COORDINATES N <u>NM</u> E <u>NM</u>		
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u>		DATE BEGAN <u>11-6-97</u> DATE FINISHED <u>11-6-97</u>		
							EDITED BY <u>A. Isaly</u>		GROUND SURFACE EL. <u>NM</u>		
							DESCRIPTION				
0	NA	0920	CC				(10"-2') Silty Sand to Silty Silt, light brown, trace of coarse sand, calcareous, slightly moist, No odor, No staining.				
		0925	1.3'				(2.9'-4') similar material as 10"-2' core. Brown, no odor, no staining.				
5		0930	1.5'				(4.7'-6') similar material as 2.9'-4' core. No odor, no staining.				
		0935	1.5'				(6.7'-8') similar material as 4.7'-6' core. No odor, no staining.				
10		0940	1.6'				(8.6'-10') similar material as 6.7'-8' core. No odor, no staining.				
		0945	1.10"				(10.2'-11.8') similar material as 8.6'-10' core. No odor, no staining.				
15		0950	2'	ml			(12'-14') similar material as 10.2'-11.8' core. No odor, no staining.				
		0955	2'	Sp			(14'-14.4') similar material as 12'-14' core. No odor, no staining.				
20							(14.4'-16') similar material as 14'-14.4' core. No odor, no staining.				
25							(16'-16.5') similar material as 14.4'-16' core. No odor, no staining.				
30							(16.5'-16.8') similar material as 16'-16.5' core. No odor, no staining.				
35							(16.8'-17') similar material as 16.5'-16.8' core. No odor, no staining.				
40							(17'-17.5') similar material as 16.8'-17' core. No odor, no staining.				

Did not encounter imprinted soil.

TOTAL DEPTH: 16 FEET

Did not encounter liquids.

Back-filled with bentonite pellets.

NA - Not Applicable

NM - Not Measured

CC - Continuous Core

Client UNocal
 PROJECT NAME
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

A-Field/Blank MW Log REV. 04/06/92

ENVIRONMENTAL SOLUTIONS, INC.

Boring No.

MONITORING WELL WOI-TS-94 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO./RIG		COORDINATES		
							TEG		N NM		
SAMPLER TYPE AND DIMENSION							1" x 2"		E NM		
FIELD ENGINEER/ GEOLOGIST							A. Isaly		DATE BEGAN 11-6-97		
EDITED BY							A. Isaly		DATE FINISHED 11-6-97		
CHECKED BY									GROUND SURFACE EL. NM		
							DESCRIPTION				
0	NA	1000	CC	ml/sm			(1.2'-2') Silty Sand to Sandy Silt, Light Brown, trace of coarse sand and gravel. Silty, No color, No staining.				
1		1005	1.9'	cl/ml			(2.3'-4') Silty Clay to Clayey Silt, Red to Dark brown, trace of sand, silt slightly moist, No color, No staining.				
2		1010	2'	cl			(4'-6') Similar material as 2.3'-4' but brown in color, No staining.				
3		1015	2'	cl			(6'-8') Clay, Red brown, trace of sand, silty, stiff, dry, No color, No staining.				
4		1020	2'	cl/ml			(8'-10') Silty Clay to Clayey Silt, Red brown, trace of sand, silt, slightly moist, No color, No staining.				
5		1025	2'	ml			(10'-11') Similar material as 8'-10' but No color, No staining.				
6		1030	1.3'	Sp			(11'-12') Silt, Light brown, trace of sand, micaceous, mottling, Dry, No color, No staining.				
7							(12'-13') Similar material as 11'-12' but No color, No staining.				
8							(13'-14') Sand, Light brown, fine to med grained trace of silt, dense, fairly graded slightly moist, No color, No staining.				
9							(Difficult drilling @ 13')				
10							Did not encounter impacted soil.				
11							Total Depth: 14 Feet				
12							Did not encounter liquids.				
13							Backfilled with bentonite pellets.				
14							NA - Not Applicable				
15							NM - Not Measured				
16							CC - Continuous Core				

Client
PROJECT NAME Unocal
PROJECT NO. 94-256
LOCATION Santa Fe Springs, CA

ENVIRONMENTAL SOLUTIONS, INC.

A-Field/Blank MW Log REV. 04/06/92

Boring No.

MONITORING WELL WOI-TS-95 SHEET 1 OF 1								
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	COORDINATES	
							N	E
							DRILLING CO./RIG	TEG
							SAMPLER TYPE	Cont. Core
							AND DIMENSION	1" x 2"
							FIELD ENGINEER/ GEOLOGIST	A. Isaly
							EDITED BY	A. Isaly
							CHECKED BY	
							DATE BEGAN	11-6-97
							DATE FINISHED	11-6-97
							GROUND SURFACE EL.	NM
							DESCRIPTION	
0	NA	1040	CC	1.4' cl/ml			(0'-2') Silty clay to clayey silt, Brown, trace of sand, micaceous, slightly moist, No odor, No staining.	
5		1045		1.6' m/sm			(2.6'-4') Silty sand to sandy silt, Brown, trace of coarse sand, micaceous, slightly moist, No odor, No staining.	
10		1050		1.9' cl/ml			(4.3'-6') Silty clay to clayey silt, Dark brown, trace of sand, micaceous, med. plasticity, slightly moist, No odor, No staining.	
15		1055		2' cl/ml			(6'-8') Similar material as 4.3'-6' core. Red brown, stiff fine grained sand, micaceous, No odor, No staining.	
20		1100		1.9' m			(8.3'-10') Similar material as 6'-8' core. No odor, No staining.	
25		1105					(10.3'-11.8') Similar material as 8.3'-10' core. No odor, No staining.	
30							(11.3'-12') Silt, light brown, micaceous, mottling, Dry, No odor, No staining.	
35							(Refusal at 12 FEET)	
40							Did not encounter impacted soil.	
							TOTAL DEPTH: 12 FEET	
							Did not encounter liquids.	
							Backfilled with bentonite pellets.	
							NA - Not Applicable	
							NM - Not Measured	
							CC - Continuous Core	

CLIENT PROJECT NAME Unocal

PROJECT NO. 94-256

LOCATION Santa Fe Springs, CA

ENVIRONMENTAL SOLUTIONS, INC.

Boring No.

MONITORING WELL WOI-TS-96 SHEET 1 OF 1											
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO./RIG <u>TEG</u> SAMPLER TYPE <u>Cont. Core</u> AND DIMENSION <u>1" x 2"</u>		COORDINATES N <u>NM</u> E <u>NM</u>		
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u>		DATE BEGAN <u>11-6-97</u>		
							EDITED BY <u>A. Isaly</u>		DATE FINISHED <u>11-6-97</u>		
							CHECKED BY _____		GROUND SURFACE EL. <u>NM</u>		
							DESCRIPTION				
0	NA	1115	CC				(1'-2') Silty sand to Sandy Silt, light brown, trace of coarse sand, micaceous, dry, No odor, No staining.				
		1126	1.5'	ml/sm			(2.7'-4') Similar material as 1'-2' core. Increase in silt content, slightly moist, No odor, No staining.				
5		1125	1.8'				(4.4'-6') similar material as 2.7'-4' core. Trace of clay, stiff, No odor, No staining.				
		1130	2'				(6'-8') Silty Clay to Clayey Silt, Red brown, trace fine to med. grained sand, micaceous, stiff, slightly moist, No odor, No staining.				
10		1135	2'	cl/ml			(8'-10') Similar material as 6'-8' core. Increase in sand content, No odor, No staining.				
		1140	1.8'				(10.4'-12') similar material as 8'-10' core. Increase in silt content, No odor, No staining.				
15		1145	1.5'				(12.4'-14') Sand, Red brown, fine to med. grained, moist, slightly moist, No odor, No staining.				
		1150	1.7'	Sp			(14.5'-16') similar material as 12.4'-14' core. No odor, No staining.				
20		1155	1.6'	ml			(16.6'-17.8') similar material as 14.5'-16' core. No odor, No staining. (17.8'-18') Silt, light brown, micaceous, mottling, Dry, No odor, No staining. (Difficult drilling)				
25							Did not encounter impacted soil.				
30							Total Depth: 18 Feet				
35							Did not encounter liquids				
40							Backfilled with bentonite pellets				

CLIENT UNocal
 PROJECT NAME _____
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

ENVIRONMENTAL SOLUTIONS, INC.

DEPTH IN FEET	PID OR FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE NO. AND TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	BORING NO. <u>VW-28</u>		SHEET <u>1</u> OF <u>1</u>	
						DRILLING CO./RIG <u>West Hazmat</u>	COORDINATES N <u>NM</u> E <u>NM</u>		
						SAMPLER TYPE <u>Port. Core</u> AND DIMENSION <u>3" x 5'</u>	DATE BEGAN <u>5/5/98</u>	DATE FINISHED <u>5/5/98</u>	
						FIELD ENGINEER/ GEOLOGIST <u>ATsaly</u>	CHECKED BY _____	GROUND SURFACE EL <u>NM</u>	
						DESCRIPTION			
0	NM	NA	Cont. Core		0-2.5	Silty Sand to Sandy Silt, Brown, trace of coarse sand and gravel, trace of roots, micaceous, slightly moist, No odor, No staining			
5					2.5-5	No recovery			
10					5-6	increase in silt content			
15					6-10	Silty Clay to Clayey Silt, Red brown, trace of sand, med to low plasticity, hard, micaceous, slightly moist, No odor, No staining			
20					10-12.5	Sandy Clay to Clayey Sand, brown, fine to med. sand, nothing, med to high plasticity, slightly moist, No odor, No staining			
25					12.5-16.5	Silty, Olive green to gray, trace of fine sand, nothing, slightly moist, No odor, No staining			
					16.5-24	Sand, fine to medium grained, trace of silt, nothing, poorly graded, [brown to gray thin lenses], slightly moist, No odor, No staining			
						Total Depth: 25 feet			
						Did not encounter ground water			
						Continuous Core			
						NM Not Measured			
						NA Not Applicable			

CLIENT WDI

(ALL FIELD LOGGING ON THIS FORM, ORIGINAL TO PROJECT FILES)

PROJECT NO. 04-256

ENVIRONMENTAL SOLUTIONS, INC.

LOCATION Santa Fe Springs, CA

MONITORING WELL <u>VW-29</u> SHEET <u>1</u> OF <u>1</u>									
DEPTH IN FEET	PID or FID (ppm)	PENETRATION RESISTANCE (BLOWS PER FOOT)	SAMPLE TYPE	U.S.C.S.	PROFILE/ LITHOLOGY	WELL CONSTRUCTION DETAIL	DRILLING CO./RIG <u>West Hazmat</u> SAMPLER TYPE <u>Continuous Core</u> AND DIMENSION <u>5' x 2.5'</u>		COORDINATES
							FIELD ENGINEER/ GEOLOGIST <u>A. Isaly</u>	DATE BEGAN <u>1/21/98</u>	
							EDITED BY <u>A. Isaly</u>	DATE FINISHED <u>1/21/98</u>	
							CHECKED BY _____	GROUND SURFACE EL. <u>NM</u>	
DESCRIPTION									
0	NM	NA	3.5	ml/sm			(0-6.5) Silty Sand to Sandy Silt, Dark brown, trace of gravel and coarse sand, trace of roots, micaceous, slightly moist, No odor, No staining. (Silty Clay zone 2.5-2.8')		
5			3.5	cl/ml			(3.5-5) No recovery (5-6.5) Saturated, possible perched zone.		
10			5	ml/sm			(6.5-10) Silty Clay to Clay Silt, Red brown, trace of sand, micaceous, Silt, med. plasticity, slightly moist, No odor, No staining (8.5-10) No recovery		
15			2	sp			(10-12.5) Silty Sand to Sandy Silt, Red brown, micaceous in silt Content, micaceous, slightly moist, No odor, No staining		
20			5	ml			(12.5-13) Sand, light brown, fine grained, poorly graded, slightly moist, No odor, No staining		
25			4	sp			(13-15.5) Silt, Olivegreen to light gray, trace of sand, micaceous, mottling, micaceous, dry, No odor, No staining		
30			3	sp			(15.5-16.5) Sand, light brown, fine to med. grained, poorly graded, mottling, slightly moist, No odor, No staining		
35							(16.5-24) Silt, light gray to Olivegreen, trace of sand, micaceous, mottling, dry, No odor, No staining		
40							(20-24) Red brown, very fine grained, moist, No odor, No staining		
							(24-35) Sand, light gray, fine to med grained, poorly graded, mottling, slightly moist, No odor, No staining		
							Total Depth (Continuous Core): 35 FEET		
							Did not encounter impacted soils.		
							Possible perched H ₂ O zone 5-6.5'		
							1st Probe: T.D. 35 (30-35) Gravel (35-39) Chips (hyd) (29-31.5) Grout (22.5-29) Chips (hyd) (24-23.5)		
							2nd Probe: T.D. 23 (19-23) Gravel (23.5-17) Chips (hyd) (17-15) Grout (15-14) Chips (hyd) (11-10.5)		
							3rd Probe: T.D. 10 (7-10) Chips (hyd) (6.5-3) Portland (3) 8"		

PROJECT NAME WDI
 PROJECT NO. 94-256
 LOCATION Santa Fe Springs, CA

ENVIRONMENTAL SOLUTIONS, INC.
 Spurs 23' & 10'

ATTACHMENT 3

Glossary of Terms

Glossary of Terms and Acronyms for Superfund

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. The term “cleanup” is often used broadly to describe various response actions or phases of remedial responses such as the Remedial Investigation/Feasibility Study (RI/FS).

Community Relations: EPA’s program to inform and involve the public in the Superfund process and respond to community concerns.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): A Federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The Acts created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either;

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work, or
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the Federal government for the cost of the cleanup.

Cost-Effective Alternative: The cleanup alternative selected for a Superfund site based on technical feasibility, performance, reliability, and cost. The selected alternative does not require EPA to choose the least expensive alternative. It requires that if there are several cleanup alternatives available that deal effectively with the problems at a site, EPA must choose the remedy on the basis of performance, reliability, and cost.

Feasibility Study (FS): See Remedial Investigation/Feasibility Study (RI/FS)

Information Repository: A file containing the current information, technical reports, and response documents regarding a Superfund site. The Information Repository is usually located in a public building that is convenient for local residents, such as a public library.

Operation and Maintenance (O&M): Activities conducted at a site after a response action occurs, to ensure that the cleanup or containment system is functioning properly.

Potentially Responsible Party (PRP): Any individual(s) or company(s) (such as owners, operators, transporters, or generators) potentially responsible for, or contributing to, the contamination problems at a Superfund site. Whenever possible, EPA requires PRP’s, through administrative and legal actions, to clean up hazardous waste sites they have contaminated.

Proposed Plan: The documentation of EPA’s proposed remedy for a Superfund site based on the RI/FS. The Proposed Plan is put out for public comment and serves as the basis for input from all concerned parties. Comments generated from the Proposed Plan are compiled and considered by EPA and presented in the Record of Decision (ROD).

Public Comment Period: A time period during which the public can review and comment on various documents and EPA actions. For example, a Public Comment Period is provided when EPA proposes to a remedy at a site through a Proposed Plan.

Public Hearing: A public meeting held during the Public Comment Period where public testimony is taken by the EPA from any concerned parties. Comments provided during the Public Hearing are recorded in the record and are responded to by the EPA in the Response to Comments.

Record of Decision (ROD): A public document that explains which cleanup alternative(s) will be used at a Superfund site. The Record of Decision is based on information and technical analysis generated during the Remedial Investigation/Feasibility Study (RI/FS) and consideration of public comments and community concerns.

Remedial Action (RA): The actual construction or implementation phase that follows the Remedial Design of the selected cleanup alternative at a Superfund site.

Remedial Design (RD): An engineering phase that follows the Record of Decision when technical drawings and specifications are developed for the subsequent Remedial Action at a Superfund site.

Remedial Investigation/Feasibility Study (RI/FS): Two distinct but related studies. They are usually performed at the same time, and together referred to as the "RI/FS". They are intended to:

- Gather the data necessary to determine the type and extent of contamination at a Superfund site;
- Established criteria for cleaning up the site;
- Identify and screen cleanup alternatives for Remedial Action;
- Analyze in detail the technology and costs of the alternatives.

Remedial Project Manager (RPM): The EPA official responsible for overseeing the Remedial Response activities at a Superfund site.

Responsiveness Summary: A summary of both oral and written public comments received by EPA during a Public Comment Period on key EPA documents and EPA's response to those comments. The Responsiveness Summary is included in the Record of Decision as the record of community concerns for EPA decision-makers.

Superfund: The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act.

Waste Disposal, Inc. Group (WDIG): The group of corporations identified as Potentially Responsible Parties that are named in EPA's enforcement order to perform investigations and remedial design activities for the WDI site.

Acronyms

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

FS: Feasibility Study

O&M: Operations & Maintenance

PRP: Potentially Responsible Parties

ROD: Record of Decision

RA: Remedial Action

RD: Remedial Design

RI/FS: Remedial Investigation/Feasibility Study

RPM: Remedial Project Manager

WDIG: Waste Disposal, Inc. Group